Resilience, Home-based Enterprises and Social Assets in Post-Disaster Recovery:

A Study from Indonesia

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‘The most important thing in life is not the winning but taking part;
the essential thing is not conquering but fighting well’

Pierre de Courbertin , 1908

This thesis is dedicated for all people, but particularly for my husband, Roy, and my beloved sons:
Raditya and Axelevan

Abstract

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This study explores the resilience and rapid recovery of Home-based Enterprises (HBEs) in a post-earthquake situation. The study focuses on social assets, human capital and capabilities at both household and neighbourhood level. Despite extensive literature on post-disaster management and HBEs, this study is unique in examining the recovery of HBEs in a post-disaster situation.

Based on the case of the 2006 post-earthquake situation in Yogyakarta, Indonesia, particularly in the Kasongan ceramic area, this research is designed to investigate how HBE households coped in the recovery situation in terms of social assets at the household and neighbourhood levels. Thus, the four aims of this study are, firstly, to assess the importance of the context in which resilience takes place, particularly as related to HBEs and Post-Disaster Responses, and, secondly, to examine the coping strategies of HBE households with reference to the dominant capitals of the Sustainable Livelihoods Approach. The third aim is to examine the key factors which emerged in the resilience of HBEs, and finally to examine the extension of the human capital concept in human assets based on capabilities.

The Sustainable Livelihood Approach is used as an analytical framework to understand coping responses and the contributing capitals in the recovery situation. Qualitative and case study methods were employed, as the nature of the inquiry required a deep explanation. Based on multiple data sources, including 58 interviewees from HBE households in the Kasongan ceramic HBE area, this study used both primary and secondary data in an inductive, interpretative and iterative way.

Resilience of HBEs is affected not only by networking, skill and education levels, but also local character, creativity and flexibility of households. The findings of this study not only support existing studies, particularly the importance of social capital in the post-disaster context, they also extend existing interpretations of the importance of people as the main factor in recovery. In accordance with the concept of human capability being more than the concept of human capital, this study looks at 'social assets', as these are rather more than 'social capital'. Therefore, this study promotes the importance of social assets in addition to social capital, both at the household and neighbourhood levels. Another contribution is that it extends existing studies which until now have mostly been based on small enterprises in low-income households, to include middle and high profile HBEs as well as the networks and linkages between them.

Keywords: Resilience, HBEs, disaster, human capability, social assets, household, SLA

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Abbreviation

ADRA	:	Adventist Development and Rehabilitation Agency
CA	:	Capability Approach
CBO	:	Community based Organization
DfiD	:	Department for International Development
DRM	:	Disaster Risk Management
HBE	:	Home based Enterprises
ICLS	:	International Conference of Labour Statisticians
IFRC	:	International Federation of the Red Cross and the Red Crescent Societies
ILO	:	International labour Organization
INGO	:	International Non-Governmental Organization
IOM	:	International Organization for Migration
JICA	:	Japan International Cooperation Agency
JRS	:	Jesuit Relief Services
KAJIGELEM	:	The area of KAsongan JIpangan GEdangan and LEmahabang
LKMD	:	*Lembaga Ketahanan Masyarakat Desa* (The Security Agency for Rural Community)
NGO	:	Non-governmental Organization
OECD	:	Organization European Countries Development
OXFAM	:	Oxford Committee for Famine Relief
ROSCA	:	Rotating Saving and Credit Association
RT	:	*Rukun Tetangga* (a collection of around 30 head of households in proximity)
RW	:	*Rukun Warga* (a collection of several RTs)
SLA	:	Sustainable Livelihood Approach
UNDP	:	United Nations Development Programme
UNDRO	:	United Nations Disaster Relief Organization
UNISDR	:	United Nations Office for Disaster Risk Education

Glossary

Abangan	: undecorated ceramic
Anglo	: traditional cooker with charcoal energy
Bawangan	: vase of artificial flowers
Cetakan	: mould
Keren	: traditional cooker with wooden energy
Keser	: traditional handcart
Mentahan	: unfired ceramic
Patung	: statue
Wuwungan	: roof horn

Human nature is always interesting to me. Since a little girl, I always amazed with people who struggled in their life.

They are in the poverty of rural areas, or people who live near railways or rivers in urban areas…. but they still survive and live happily.

One day in 2006, I saw the ruins following an earthquake, which were placed alongside a pottery village. Amazingly, not long after that, this artistic village was back and had interesting potteries….

Chapter 1

The Post-Disaster Situation and Resilience: A Story of Rapid Recovery

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The Post-Disaster Situation and Resilience: A Story of Rapid Recovery

This research is about HBEs, and specifically those which are resilient to adversity, particularly in the post-disaster situation. It focuses on ceramic HBE households as they coped with recovery after the earthquake in Indonesia in 2006. Why is investigating the resilience of HBEs in post-disaster situations important? In order to establish this, the concept of 'resilience' will first be introduced.

1.1. Resilience, Adaptation and Coping in the Face of Adversity

Resilience is the capacity to recover from difficulties (or toughness), and as a term is widely used and debated. The concept covers multi-scales and disciplines, such as environmentalism, psychology, urban planning and regional development, post-disaster and social resilience (Glavovic et al., 2003; Klein et al., 2003; Patton and Johnston, 2006; Dawley et al., 2010; Obrist et al., 2010a; Obrist et al., 2010b; Pike et al., 2010 ; Davoudi, 2012). The origin of the concept of 'resilience' is mostly derived from the environmentalist perspectives where it has been widely used (Carpenter et al., 2001; Davoudi, 2012). The word 'resilience' originates from a Latin word 'resilire', which means to 'jump back', 'recoil' or 'spring back' (Aldrich, 2012; Davoudi, 2012). By definition, the various disciplines have different emphases for the term 'resilience'; however, it is the ability to jump back in the adaptation process (Klein et al., 2003; Paton et al., 2007; Pike et al., 2010), which becomes a common thread. From the recent literature, the key concept of resilience is adaptation.

Adaptation and capacity to cope with adversities is a crucial factor in the establishment of resilience. Coping is different to adaptation in terms of the length of time needed for the process. Also, adaptation focuses on the changes and interaction between humans and their environment, while coping is about the capacity to respond to adversity and reduce vulnerability. Adaptation in a wider context, namely climate change, is about the ability of a system to adjust to climate change, to moderate potential damage, to take advantage of opportunities, or to cope with the consequences (Sharma and Tomar, 2010: 452), or the process of adjustment that takes place in natural or human systems in response to the actual or expected impacts of climate change, aimed at moderating harm or exploiting beneficial opportunities (Klein et al., 2003: 37). Therefore, adaptation is the ability and also the process

of adjustment in order to respond to changes and straitened circumstances by exploiting opportunities and moderating harm.

Adaptation is a process which needs a long term, while coping is about the response to adapt and cope over a shorter period of time. This coping process and its attendant strategies starts from households (Rakodi, 1995; Rakodi and Lloyd-Jones, 2002; Moser, 2009) who seek to cope with adversities and vulnerabilities (Corbett, 1988; Few, 2003).

1.2. The Importance of HBEs and their Resilience

According to Strassmann (1986), HBE owners use their houses in specific ways, for the dual functions of domestic and economic activities. By definition, HBEs owners utilise their house or plot as both a shelter and an income generator (Tipple, 1994; Kellett, 1995; Kellett and Tipple, 2000; Gough *et al.*, 2003; Tipple, 2004; Tipple, 2005; Tipple, 2006) .

From multiple perspectives, HBEs contribute not only economically (Strassmann, 1986; Tipple, 1994; Kellett and Tipple, 2000), but also socially (Coen *et al.*, 2008) and physically (Kellett, 1995; Marsoyo, 2012). Furthermore, on a wider scale, it is that HBEs also contribute to economic performance at a macro level, such as at a city level, in providing jobs and well-being improvement (Akbar, 2009).

Employment or economic activity is important for households in order to generate income. Therefore, in a post-disaster context, there is a need to maintain employment or recover economic activities as they were prior to the earthquake. Furthermore, income generation recovery is particularly important in a post-disaster situation (Lizarralde *et al.*, 2009). As a consequence, the reconstruction of HBEs requires the provision of a space not only for shelter but also for income generation.

Regardless of the level of space used for the economic activities in the house or plot, HBEs play a significant role in supporting households. Consequently, it is important to examine the toughness and fast recovery of HBEs due to their significant contribution to the economics of the household. When an earthquake destroys the homes of an HBE household it means that not only their shelters are damaged but also that their income generating function is lost. For this reason, in the post-disaster context, a quick recovery is a sign of the resilience of the HBEs in resolving the twin problems of shelter and generating income. Thus, the resilience of an HBE is important for many households, as it not only provides shelter, but also income.

Furthermore, as resilience can be viewed from multiple perspectives such as the Sustainable Livelihood Approach (SLA), this has also become an analytical tool of this study. However, the study focuses on particular aspects, namely people as the determinant factor in the resilience of HBEs in a post-disaster situation. More details on this are explained in the problem statement given later.

1.3. Resilience and Social Assets at the Household and Neighbourhood Levels

This study focuses on resilience based on social assets, which means that recovery is based on the capacity of humans to cope with adversity and vulnerability at the household and neighbourhood levels. Based on recent studies, it has been argued that humans are the significant factor in maximizing resilience in post-disaster situations (Metzl, 2007; Aldrich, 2012). Therefore, this research investigates how humans and their interrelationships are prominent factors behind the resilience of HBEs, and particularly how human and social capital are important in facing adversity (Lin, 2004).

Recent studies have emphasized the importance of networks among people in the post-disaster situation. Aldrich (2012: 15) states that: the'high level of social capital –more than such commonly referenced factors as social economic condition, population density, amount of damage or aid –serve as the core engine of resilience'. It is important for people to help each other through networks and relationships between HBE households, such as in cleaning debris or borrowing a neighbour's equipment. According to Lin (2004), social connections in building social capital are important.

The concept of human capital is derived from the economic perspective. Consequently, its indicators relate to the human capacity for economic benefit, and so education level, knowledge and skill are in turn important indicators (Schultz in Lin (2004)). However, the households' capacity to deal and cope with the post-disaster situation needs more than education and skills.

Cohen and Ambrose (1999) indicate that the flexibility of an individual to cope with adversity is part of creativity as it can be described on a continuum. Furthermore, Metzl (2007) argues that humans, particularly in their creativity, have an important role for fast recovery in the post-disaster context. Creativity, such as in art, is a likely link to the flexibility and adaptability of households through their coping strategies for daily life problems.

In this way, this research echoes recent studies and builds on the arguments concerning resilience in a post-disaster situation. However, this study enriches existing knowledge in terms of the human characteristics as factors in the resilience of HBEs. Thus, the aim, research questions, and objectives are presented in the next section.

1.4. Research Questions, Objectives and Sub-Questions

This study aims to explore the resilience of HBEs in a post-earthquake situation. In the context of resilience as the capacity to recover from difficulties, the main research question is:

"How do HBE households demonstrate resilience in post disaster recovery? "

The resilience of HBEs will be investigated by the exploration of coping strategies based on people's capabilities or social assets. Whether or not social assets consist of human and social capital, rapid recovery as an indicator of resilience is important, but the study will not seek to prove this and it will not be part of the analysis. This means that rapid recovery was a consideration in the choice of an appropriate case study, but the focus of this study is the investigation of the resilience of the HBEs in the post-disaster situation based on social assets. In more detail, the sub-questions are presented in table 1.1 as follows:

Table 1. 1 Objectives and Sub-questions

Objectives	Sub-questions	Chapter
1. To assess the importance of the context in which resilience takes place, particularly as related to HBEs and post-disaster responses	What are the general characteristics of the Kasongan area? What were the post-recovery responses? Who is involved in and how are the post-recovery responses working? What are the types of HBEs which then interconnect with each other in the post-disaster situation?	Chapter 5 The Kasongan Context: Post-Disaster Recovery Responses and the Growth of HBEs
2. To examine the coping strategies of HBE households with reference to the dominant capitals of the Sustainable Livelihoods Approach	What are the SLA capitals in the Kasongan area? What are the coping strategies of households in the post-disaster context based on the SLA capitals? Which capitals contributed most to the resilience of HBEs during post-disaster reconstruction?	Chapter 6 Capital Analysis: Exploring Coping Strategies
3. To examine the key factors which emerged in the resilience of HBEs	How do the dominant capitals work in building the resilience of HBEs? How do the human capital indicators of education level and skill affect the establishment of resilience in HBEs? How does the social capital mechanism regarding connectedness relate to the emerging resilience of HBEs?	Chapter 7 Emerging Resilience of HBEs: The Contribution of Human and Social Capital
4. To examine the human capital concept in human assets based on people capabilities	What is the capacity of people to demonstrate resilience in the post-earthquake situation? How can human capability, particularly character, flexibility and creativity, contribute to the resilience of HBEs?	Chapter 8 Human Capability: Beyond Human Capital

Thus, based on the importance of human and social dimensions in speedy recovery and the resilience of HBEs, these social assets become significant in this study.

1.5. The Context of this Study: Kasongan Ceramic HBEs and Post-Disaster Recovery

1.5.1.The 2006 Earthquake and Fast Recovery

This section is about the recovery of ceramic HBEs in Kasongan, near Yogyakarta, Indonesia, which is the setting of this study. As a part of the Pacific Ring of geological structure, Indonesia has a significant risk of earthquake, tsunami and volcanic eruption. Yogyakarta's earthquake in 2006 was devastating; it measured 6.3 on the Richter scale and left more than 5,700 people dead. More than 60,000 people were injured, two million houses were damaged and hundreds of thousands of people lost their homes (Resosudarmo et al., 2012). This earthquake was so devastating that although it did not claim as many victims or fatalities as other disasters, the damage and loss, in terms of building or properties, was significantly higher (BAPPENAS et al., 2006). In Kasongan, based on interviews with the chief of the 'dusun' (a sub-village), 12 people were killed by the earthquake, while many others were injured. Hundreds of households lost their houses, which also meant that as HBEs, they also lost their place for generating income.

In many cases, at least 6 months are required to recover in terms of schools returning and businesses re-opening (Chamlee-Wright, 2010: 41), or even five years for full recovery, according to the notion of the return of people and businesses to the area (Aldrich, 2012: 6). However, the recovery of Kasongan HBEs after the earthquake was relatively quick. By restarting activities, even from their tents, it seems that the recovery started gradually from the damage caused by the earthquake. Based on the fieldwork in mid-2011, from 58 respondents, almost all resumed their HBE activity in the year following the 2006 earthquake. 26% restarted within one month. The following is a quotation from an interview with a daughter and her mother. When asked about restarting the making of ceramics following the earthquake, they reported that they restarted even though it was from their emergency shelter, their tent:

> *…at the same time as the efforts to clean up the debris…about 2 weeks after the earthquake, (we) restarted making pots, am I right mum?... We slept and also made (the pots) in the tent….although on those days sometimes there were still tremors…but (we) also made pots during the day...with a hope they could be sold…and that is true, until nowadays all the pots were sold* (Mbak Atun and Bu Tumilah. A daughter and mother, interview June 2011).

This shows that the restart of ceramics activities was rapid. Activities such as the purchasing of ceramic souvenirs in ceramic shops or showrooms alongside the village main roads revived quickly, to the extent that they resembled the pre-earthquake situation. Although all stakeholders were involved in the reconstruction, the key stakeholders were the local community, which had the strength to be revived. Export activities continued, as well as the traditional and local ceramic products. Reconstruction in the Yogyakarta region seems to have been more successful than other areas such as Aceh in the aftermath of the 2004 tsunami. The

Yogyakarta reconstruction was deemed a success in the sense of faster response and reconstruction (MacRae and Hodgkin, 2011).

1.5.2.The Role of HBE Households and Relationships between Them

The chosen case study is ceramic HBEs in the Kasongan area which is located approximately 8 kilometres from Yogyakarta City Indonesia (Figure 1.1), as the area demonstrated relatively quick recovery from the post-disaster situation (Raharjo, 2009a). Based on the findings of the mid-2011 interviews as well as the literature review, it became clear that the households and relationships between them played an important role in relation to the recovery of HBEs in the post-earthquake situation. This study is based on an analysis of the social assets at the household and neighbourhood levels in the post-disaster recovery.

Figure 1. 1 Case Study Location in Kasongan is near to Yogyakarta City

The creativity of ceramics HBE households of Kasongan has been developing for generations, and the creativity of the Kasongan people is demonstrated by their ability to continually create new and successful designs, even on a global scale. As a result, the Kasongan area has become one of the main tourist attractions of Indonesia(Raharjo, 2009a; Raharjo, 2009b; Raharjo, 2009c). The human factor of the resilience of HBEs also seems established in such a determined and self-confident people, as depicted in interviews. It provides examples of the Kasongan people being skilful and confident in making ceramics with the qualities and capacities to deal with the adversity of a post-earthquake situation.

Close relationships and thus social connections are part of the Javanese and local tradition. Pak Timbul Raharjo (2000a) highlights the phenomenon of a local culture that seems to connect people together:

> *'A passionate desire to revive among craftsmen, and indeed became craftsmen or ceramic producers, was one of the heritages of their ancestors as then they became principal jobs. ….In (the post-earthquake situation) Kasongan, a ceramic craft and tourism village became disorderly and lethargic, but with the spirit of 'gotong-royong'/mutual help or cooperation among them, the Kasonganese have cleaned up debris and redeveloped their art-shops. The spirit of 'gotong-royong' took place in the community of Kasongan in particular, and Javanese in general. The 'gotong-royong' encouraged the spirit to rise again and thus to restart the production of ceramics even in the emergency stage'* (Raharjo, 2009a: 58).

'Gotong-royong' or mutual help between the Kasongan people was a capital that appeared to enable rapid recovery in the post-earthquake situation. In the aftermath of the earthquake, the prevailing culture of mutual help seems to be one of the most important factors accounting for the fast recovery from the post-earthquake impact, starting with the community effort to adapt to the post-earthquake situation (Prawitasari-Hadiyono et al., 2010). Furthermore, a strong social connection between neighbours is a key part of Indonesian culture (Kellett and Bishop, 2006).

Several publications regarding Kasongan have focused on the area from a wide range of disciplines, including art and economic perspectives(Nugraha, 2009; Raharjo, 2009a; Raharjo, 2009b; Raharjo, 2009c), but a study of the resilience of HBEs in a post-disaster context has not, as yet, been explored.

The study aims to investigate if indeed the Kasongan people themselves are the key factor that contributed to the resilience of HBEs, even though other stakeholders also played a role in their recovery, namely, the media, community groups, individuals and NGOs from outside the Kasongan area who provided support during the emergency stage. Without ignoring the value of the role of international donors (MacRae and Hodgkin, 2011), the HBEs appeared to re-establish themselves quickly, partly due to their culture of supporting each other (Raharjo, 2009a). External support was undoubtedly helpful and may even have acted as a trigger, but without determined action from the local people, external support including that from the government is unlikely to have effective, due to the short term nature of these types of external support. Therefore, even though many external factors have supported the rapid recovery of Kasongan ceramic HBEs, it seems that the main factor of recovery was the Kasongan people themselves. This study seeks to confirm this initial understanding.

Although recent studies of HBEs have focused mainly on low income groups (Kellett, 1995; Tipple et al., 1996; Gough, 2000; Kellett and Tipple, 2000; Gough and Kellett, 2001; Tipple, 2004; Tipple, 2005; Gough, 2010), the case of Kasongan adds a supplementary story. Kasongan's ceramic HBEs not only consist of relatively low income groups in traditional small HBEs, but also middle and high profile enterprises since the area developed into a ceramic village industry centuries ago. It became more developed as a tourist village based on the ceramic industry since 1980s (Raharjo, 2009a), which then also triggered the establishment of high income HBEs through the export of ceramics worldwide. It seems that the high profile

HBEs enhanced their ability to produce export products and hire non-family members (Pearson, 2004), and thus high income earners are also included as a type of HBE. In Kasongan, it seems that the connection between people from different types and levels of HBE was part of the contributing factor in creating the faster recovery of HBEs.

In conclusion, Kasongan was chosen as the case study as it indicates that both at the household and neighbourhood levels the Kasongan people played a significant role in the coping process in the post-disaster context.

1.6. Research Approach

Due to the nature of the investigation and the research questions to be addressed, the study was designed as qualitative research. The focus of this study is the household level and the study is dominated by an analysis of household strategies towards post-earthquake resilience.

Case study research provides an opportunity to investigate deeper into a particular case, and by repetition of other cases, so that the approach can contribute to theory building (Yin, 2009), particularly when cases of households are then translated into a continuum of households' different resilience levels in a post-earthquake situation. A case study approach is deployed to allow contextual examination of the Kasongan area with regard to exploring the driving forces or dominant factors of the resilience of HBEs. The resilience of HBEs is the focus of this study, so the process of coping at the household and neighbourhood levels is the main analysis of this study. A case study as a research method combined with the SLA as an analytical framework was deemed to be the most appropriate in order to explore the adaptation process, particularly focusing on the livelihood strategies of households.

The DfiD Sustainable Livelihood Approach (DFID, 1999) was adopted for this study due to its ability to help explain the process of adaptation and coping towards adversity. This approach is able to explore assets in the coping process which consists of natural, human, social, financial, and physical capitals.

The research then uses data triangulation from multiple data sources to enhance reliability and validity (Yin, 2009). Both qualitative and quantitative data were collected, but the study focuses on more qualitative data. Data sources include interviews, questionnaire, surveys, and observations to understand how the resilience of HBEs emerged in the Kasongan area. The analysed data address the questions about the nature of resilience and how the connections between HBEs work. It also explains how the adaptation process and dominant assets affect resilience, and how socio-capital at the individual and community level contributes to the resilience of HBEs.

1.7. Detailed Structure of the Thesis

The study is organized into nine chapters. Following this introductory chapter, chapter two (**Home Based Enterprises and Post-disaster: A Literature Review**) examines HBEs and the post-disaster literature. It explains recent studies on HBEs in terms of how they are understood. The second part of this chapter explores the post-disaster literature, and explains a contemporary approach to post-disaster management.

The third chapter (**The Sustainable Livelihood Approach and Resilience**) is the second part of the literature review. This part explains the analytical framework to understand the adaptation and coping process in post-disaster situations, particularly the SLA capitals. Thus, part of it examines the meaning of resilience and its relation with the SLA as a concept, and it introduces the socio-capital aspects. The last part of this chapter is about the adaptation of the capitals, and human capital in particular.

Chapter four (**Research Methodology**) explains the study design, the data collection analysis and management process, it includes a reflection section, particularly about writing methods, validation, weaknesses, criticisms and strengths of the case study as a research method.

Chapter five (**The Kasongan Area in Context: The Growth of HBEs and Post-Disaster Recovery**) examines the Kasongan area, to provide information about the process and response in post-disaster recovery. It examines the various types of ceramic HBEs in the Kasongan area, to give the context within which to analyse the interrelationships between various types of HBE.

Chapter 6 (**Capital Analysis: The Sustainable Livelihood Approach)** analyses the dominant capitals in coping strategies and identifies which capitals contribute to the resilience of HBEs.

Chapter seven (**Emerging Resilience of HBEs: The Contribution of Human and Social Capital)** focuses on the human and social capitals which are dominant in the resilience of Kasongan HBEs. This chapter provides an examination of the indicators of human capital in education level and skill. This is followed by the analysis of social capitals in demonstrating the level of resilience.

Chapter eight (**Human Capability: Beyond Human Capital**), provides arguments relating to the role of individuals in households and neighbourhoods, based on the local character and their flexibility and creativity to cope with disaster impacts.

Chapter 9 (**Conclusion: Towards the Resilience of HBEs based on Social Assets**) concludes the analytical processes and confirms that social assets are important in the resilience of HBEs. This study concludes with recommendations on future research.

Chapter 2

Home-Based Enterprises and Post-Disaster: A Literature Review

Chapter 2

Home-Based Enterprises and Post-Disaster: A Literature Review

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Home-Based Enterprises and Post-Disaster: A Literature Review

This research focuses on the resilience of home-based enterprises (HBEs) in facing adversities, particularly in post-earthquake situations. In order to provide an analytical framework to answer the research questions, this chapter will examine the existing literature to provide an overview of the key concepts and theories.

Chapter 2 contains the first part of the literature review, and begins with a description of the nature of HBEs, before addressing the latest discussion related to post-disaster situations. Thus, it will cover the literature on post-disaster responses. The second part of the literature review will be presented in Chapter 3: Sustainable Livelihood Approach (SLA) and Resilience. These two chapters present theories around HBEs, post-disaster responses, resilience, and SLA and its assets, as well as the concept of creativity. This study emphasizes the dominant assets or factors, particularly social-assets or factors, includes human and social capital, in presenting the resilience of HBEs in a post-disaster situation. The discussion focuses on those ideas that help to build a theoretical perspective in order to understand related contemporary views and concepts based on both motivation and challenges.

With regard to the literature review chapters, the motivation to understand the resilience of HBEs has resulted in the acquisition of a broader understanding of how and why HBEs can recover in a post-disaster situation. One of the challenges has been to understand the multi-disciplinary perspectives, such as studies from the economic, social, spatial, post-disaster management, psychological and even anthropological perspectives, in order to integrate a deeper understanding of the rate of recovery for HBEs in a post-disaster context. This is because the study highlights the complex phenomenon of the resilience of HBEs, and so it is necessary to understand not only the HBEs themselves, but also the post-disaster responses, particularly in terms of strategies for the adaptation and coping as responses to adversity. A further challenge for the literature review relates to the integration of Chapters 2 and 3, because of the literature review itself, and the combination of the literature review and the method part of the SLA, which forms the main analytical framework.

Furthermore, in relation to HBEs and post-disaster responses, the literature reviewed in the first part of this chapter is mostly based on research in Asian, African, and Latin American countries. Some researchers have focused closely on the context of informality and smallness of HBEs (Tipple, 1993; Kellett, 1995; Gough et al., 2003; Tipple and Kellett, 2003; Tipple, 2005; Ligthelm, 2007; Verrest, 2007), while others have also looked at another dimension, namely the wider scale and markets for home-based production (Raj and Mitra, 1990; Pearson, 2004).

Meanwhile, an informal dimension of the post-disaster response has also been acknowledged in the context of developing countries (Lizarralde et al., 2009).

2.1. Home-Based Enterprises

This part describes HBEs by providing a description of housing in order to underline the function of house and home. HBEs are then viewed from various perspectives.

2.1.1. The Meaning of Home-based Enterprises

2.1.1.1. Meaning of House and Home: The Relationship

A distinction is often made between the terms 'house' and 'home'. Dovey (1985: 34) sees the difference as being that a house is an object, part of the environment, while home represents a kind of emotionally meaningful relationship between people and their environment.

Therefore, a 'home' has more emotional dimensions, while a 'house' is the physical product of a production process. In a more detailed categorization of the meaning of home, Depres, in Kellett (1995), states that a home entails the roles of security and control, a reflection of one's ideas and values, material structure, permanence and continuity, relationship with family and friends, the centre of activities, a refuge from the outside world, an indicator of personal status, the modification of one's dwelling, and a place to own. Thus, home is far more than just shelter or a physical object; it also has dimensions connected to a series of other processes and factors (Kellett, 1995). Furthermore, the relationship between dwellers and their houses is influenced by the relationships that people have in the setting of the house, and a key element of this is the concept of the family. Thus, a picture of a normative lifestyle is formed by the home and family relationships (Clapham, 2005).

According to King (in Clapham, 2005), housing is 'a place of security and enabling for a household'. This means that housing is a place for household members to receive security and which enables household members to receive income based on activities done at home.

2.1.1.2. Meaning of Home and Home-based Enterprises

Kellett and Tipple (2000, p. 203) argue that a dwelling is not a place solely of accommodation and social reproduction; rather, a house may also have a role in production, particularly in terms of income generation. While some households have separated a place for work and home, other households sacrifice considerable areas of their living space to accommodate activities to earn a living within the dwelling. Therefore, in order to gain a better understanding of the role of the house for households in developing countries, it should be acknowledged that in many situations it 'includes income-generating activities as valid and normal within the domestic environment', and that the home is 'not merely a container of human life but an essential shelter for those life-sustaining activities' (Kellett and Tipple, 2000:212-213). Kellett (1995: 212) argues that HBEs can be defined as 'income generating

activities taking place in the dwelling or on the plot.' As a concept, home-based enterprises correlate with the home-based workers. According to Tate (in Pearson, 2004: 139), 'the home-based work is done in or around the home for a cash income'; therefore, the concepts of 'home-based work' and HBEs have similarities as both have an economic dimension, while the difference is that HBEs emphasize a unit of economic activities in and around the home, whereas the concept of a 'home-based worker' focuses on the person who performs economic activities in and around the home (Kellett, 1995; Pearson, 2004). On the same subject, Pearson (2004: 138) states that,

> *'In developing countries, the broader term 'home-based workers' tends to be used in recognition of the fact that the term 'home' is not necessarily consistent with a private separate domestic space, and that women often work around or outside their home or travel to and from home in pursuit of different activities. This is particularly the case in activities related to agriculture or food processing'.*

The next section explores the economic activity of HBEs from the point of view of the 'home-based worker'. This includes a wide range of HBEs which started from home-based activity and which became able to produce products that are marketed not only on a limited scale (for example, at the neighbourhood level), but also on a wider scale, such as for national or even international markets. This leads to a new understanding that HBEs can also operate at a high-profile level.

2.1.1.3. Meaning in Economic Terms

Based on the economic terminology of HBE discourse on worker division (Pearson, 2004), the terms 'home-based worker' and 'micro-entrepreneur' can both be applied to those using the house as a place for work and income generation, but there is also a differentiation, as will be explained.

The term 'home-based worker' was acknowledged by the ILO Convention on Homework in 1996 (Pearson, 2004). Even though the difference between 'homeworker' and 'home-based worker' is currently debated as a home-based enterprises concept, 'homeworker' is more generally used in Western countries 'where homework is contrasted with the transition to factory production after the industrial revolution', and 'home-based workers' tends to be used in developing countries in acknowledgement that the term 'home' 'is not necessarily consistent with a private separate domestic space' (Pearson, 2004).

Therefore, the differentiation between 'dependent' or 'subcontracted' workers and 'micro-entrepreneurs' or 'own-account worker' appears, in two respects. Firstly, the 'subcontractors' or 'dependent homeworkers' tend to be paid at a piece rate or on the basis of the number of units which can be produced at a fixed price; 'micro-entrepreneurs' or 'own-account-workers', on the other hand, operate without an employer, contractor or direct supplier, but tend to design and create products that can provide income for their households.

Secondly, it seems that there is a difference in terms of the autonomy and independence of the work, so that 'subcontracted home-based workers' are possibly partially 'engaged in processing products which form part of the global value chain', usually a part of an export industry. Some of these 'subcontracted home-based workers' are involved in producing or assembling parts that are part of a chain for both domestic and international markets (Pearson, 2004). On the other hand, 'own-account workers' or 'micro-entrepreneurs' are 'responsible for collecting and assembling their own raw materials, designing and manufacturing the products, and finding and selling to particular markets' (Pearson, 2004: 36). Therefore, such 'subcontractors' or 'dependent workers' are less autonomous than 'own-account workers' or 'micro-entrepreneurs'.

However, this differentiation can be problematic. Some micro-entrepreneurs have a regular export buyer, for instance, which creates a situation of mutual symbiosis. Although 'micro-entrepreneur' or 'own-account workers' have been recognized as self-employed, in fact they also depend on 'market' demand. Bulgarian knitters, for example, who supply traders who then export their product to Greece, are also seen as being affected by the trader who can sell their product: although they collect and assemble their own materials, and design and manufacture the products, the buyer or trader can set prices and quantities in a subjective manner. Meanwhile, there are a large number of other competitors from similar micro-enterprises. Therefore, this is evidence that 'own-account workers' can also be 'dependent' workers, rather than representing autonomous home-based enterprises (Pearson, 2004).

On the other hand, there is some similarity between 'dependent' and 'own-account' workers. According to Pearson (2004: 139), both 'subcontracted' and 'own-account workers' tend to achieve only low-level earnings. Therefore, both of these groups lack the opportunity to accumulate and invest capital in machinery or other resources which could lead to the creation of a more profitable business (see also Prügl and Tinker, 1997).

Hence, from an economic perspective, home-based enterprises can be divided into three categories, namely 'subcontractor' or 'dependent' worker, 'micro-entrepreneur' or 'own-account worker' (working without an employer), and those who form a combination of the two, i.e. 'subcontractor' or 'dependent' worker but also 'micro-entrepreneur' or 'own-account worker,' as these two types can function at the same time in certain HBEs. A view of the economic characteristics of various workers from HBEs is needed, therefore, in discussion of the types of HBEs, as will be covered in Chapter 5. This will help to develop a better understanding of the social relationships between various HBEs, and between different types of HBE.

2.1.2. The Motivation and Roles of HBEs

2.1.2.1. Home-based Enterprises: in the Context of a Developing Country

The term 'home-based enterprise' was introduced by Strassmann (1986) as another name for home industries. Strassmann (1986) estimates that up to 25 per cent of dwellings in developing countries undertake economic activities on the premises (Strassmann, 1986). The same notion indicates that housing is not always consumption; rather, it can be viewed as a source of production, as stated by Laquian in Tipple (1993: 521):

> *If there is one lesson for planners in the massive literature on slums and squatter community life, it is the finding that housing in these areas is not for home life alone. A house is a production place, market place, entertainment centre, financial institution and also a retreat. A low income community is the same, only more so. Both the home and the community derive their vitality from this multiplicity of uses.*

2.1.2.2. Motive: Livelihood Strategy

This part provides a depiction of the background of the establishment of HBEs, particularly in developing countries, from either the initial or livelihood strategies, which then also affects the post-disaster situation. Kellett and Tipple (2000), in a study of home-based enterprises in a squatter settlement in New Delhi, India, recognized that survival strategies can form the motivation for the establishment of HBEs. Part of the background to the growth of HBEs is a lack of formal employment, as the rate of employment provision is below the growth rate of the labour force (Ligthelm, 2007). Furthermore, according to Yankson (2000), home-based enterprises are a common phenomenon in developing countries such as Ghana, as HBEs tend to follow the process of urbanization and the development of the informal sector. This same notion was also expressed by (Pearson, 2004: 137), who states that this growth,

> *…In many ways resembles what historians have identified as 'proto-industrialization' in nineteenth-century Europe, when production of consumer goods was outsourced to family-based workshops ... Although some developing countries have industrialized in a manner which, at least until recently, has meant that the bulk of employment has been located within the formal regulated economy, in many such countries the informal economy continues to be the site of livelihood production for most of the population.*

Proto-industrialization is a preliminary shift from an agricultural to an industrial economy; one of the signs of this is the rapid spread of home-based industries (Mendels, 1972). Although some developing countries had previously created labour market structures which resembled those of the industrialized countries, the formalization of economies had the potential for collapse, thus creating a need for informal economies:

> *As factories have closed, public sector employers have cut back, real wages have fallen, and even more households have come to rely on what they can sell in the informal unregulated economy (Pearson, 2004:137)*

Also, the role of the urban informal sector is important as the increase in the urban population leads to higher demand for jobs, and therefore the formal sector is not able to fulfil all of the need for jobs (Gough *et al.*, 2003).

Furthermore, such pressures on agrarian activities, particularly when farming land has decreased as a consequence of the urbanization process, led to a need for households all over the world that relied on agriculture to diversify their income-earning activities. The socialist countries in Eastern Europe, the former Soviet Union, and China which previously depended on state-owned enterprises have to 'explore multiple strategies to earn sufficient income to ensure their own survival' (Pearson, 2004:137), so having their own HBEs is one strategy for survival for many households. This research is about how the resilience of HBEs is demonstrated in a post-earthquake situation. The initial motives usually originate from the human instinct to survive, and these then also become livelihood strategies. HBE households also tend to explore multiple strategies for survival and maintaining their HBEs, even in a post-disaster situation when earthquakes have destroyed either their home and/or income generation at the same time.

2.1.2.3. The Role of Home-based Enterprises

This part explores the multiple roles of HBEs. From an economic point of view, the role of HBEs seems significant. Gough *et al.* (2003: 264) argue that HBEs are widely spread in African cities, such as Accra, where their contribution to household livelihood is significant as they are an important income-generating resource, and they also contribute to poverty alleviation at the household level. More than half of all HBE households rely on HBEs, as they have no other income; an HBE can contribute 70% of an HBE household's income. The case of Semarang, Indonesia, shows that HBEs have contributed 50-75 % of a total household income (Siahaan, 2009). The role of HBEs in contributing to household income is important, especially for low income households. On a city-scale, HBEs contribute to providing jobs and improvements in wellbeing (Akbar, 2009).

HBEs do not only make sense economically, they are also socially beneficial. The cases of Accra and Pretoria illustrate that the role of women is important in home-based enterprises, since the women are given the opportunity to engage in economic activity. Another important point is that HBEs enable elderly people to be more independent and thus provide a boost to self-esteem, as they can also be involved with HBEs (Gough *et al.*, 2003: 266). The social aspect of small trade stores in Cochabamba, Bolivia, is remarkable (Coen *et al.*, 2008:335-336): these shops become quasi-public spaces – a sort of 'local loudspeaker' – as they convey news from one neighbour to another, and '*facilitate the circulation of information regarding local security, urban services and infrastructure, and the goings-on.'* Frutillar families become local directories, and act as an informal social controller, and then 'security' watchdog, providing social and emotional support; therefore the presence of HBEs '*helps morally, not just economically*', providing a helping hand, especially for needy people. Additionally, such shops help to provide goods when they are difficult to find due to blockades or social calamity .

Even though HBEs seem to have many advantages, they also have disadvantages. One critique of micro-enterprises, including home-based enterprises, is that these businesses can pollute the air and increase noise, and this is hard to control (Tipple, 2004). However, the productive aspect and the possibility of increased income are important, especially for low income people.

Spatially, these businesses utilize various proportions of the house. According to Tipple (2004), most house space has a domestic function; in an empirical study in four developing countries (Bolivia, India, Indonesia and South Africa), it was shown that the proportion of space used for domestic or household functions was approximately 65.6-80.8 %, and the rest of the house space is used for business. On the same notion, a Semarang case study shows that on average, the space used was between 65-85 % of the house for domestic activities. The space for economic activities tends to be at the front of the house, on the terrace, as well as inside the house, for example in the living room (Tyas and Simbolon, 2009).

According to Marsoyo (2012), HBEs have a spatial capital dimension, which is part of the physical capital in the Department for international Development's (DfiD) Sustainable Livelihood framework. Some HBEs use the same space for dual functions, e.g. shelter and income generating functions. Use is time-dependent: during the night, the space in a house is used for shelter, while the same space becomes an income generator during the day (Marsoyo, 2012). However, other cases show that, during the day, most of the house space functions for economic activities, and when the night comes the house serves as a shelter. This happens because the bedroom becomes a place for economic activity during the day-time. Therefore, it should be remembered that one of the characteristics of HBEs is the inseparable function of production and consumption. As such, the micro-spatial aspect needs to focus on the management of domestic and business functions (Marsoyo, 2012).

In relation to physical capital, it is also about physical aspects both in micro and macro scale. Micro scale represents by the used space for the HBEs, while macro scale is about the location of HBEs. At micro scale, some cases of resettlement in HBEs reveal the enlargement of the house, as this increases the opportunity of households to increase their income by renting a room or making a small shop or house-shop, such as in Facatativa, Colombia (Lizarralde *et al.*, 2009). On the macro-scale, the distribution pattern of home-based enterprises can be detected. Based on a study in Lima, Peru, Strassmann (1986) states that the productivity of such businesses depends upon several aspects:

> *Their productivity depends on access, cost of space, density of settlement, and other neighbourhood characteristics.*

Also related to location, an advantageous location tends to be used for the economic activities of non-HBEs or HBEs operating at a higher level, which requires skills and/or resources (Raj and Mitra, 1990). This occurs in Semarang, where land has a higher price when it is located near the road. Therefore, the more strategic the location, the greater the number of people who are attracted to buy what is offered by a shop, as the shop and the products sold by this shop

are easily seen and accessible. Another factor is that those HBEs which need more skills and resources earn more income in strategic locations (Siahaan, 2009).

With regard to location, in several cases many HBEs are located in the same place and have a connection in economic terms of mutually beneficial relationships. Co-location means being located jointly or together as two or more groups, and to share, or designate to share, the same place in order to make a cluster. Co-location needs to be managed via government intervention, as stated by Healey:

> *Governance practice [have] evolved to address the difficulties created by the complex co-locations of activities and their relations and the impacts these co-locations generated across space-time (Healey, 2009: 277).*

According to Currid and Williams (2010), the co-location of cultural industries improves economic development as it offers a broad labour market. This co-location is also a case of a concentration of economic activities in one area, such as in forming a ceramic village or areas.

As this study focuses on the resilience of HBEs in a post-disaster situation, this literature review echoes the importance of HBEs. Also, it provides a basic analytical framework in relation to the economic, social and physical dimension roles of HBEs. The next section considers the types of HBE based on contemporary concepts.

2.1.3. Types of Home-based Enterprises

This part emphasizes the present concept of various types of HBE, which can vary. HBEs can be categorized in terms of types of business and level of resources, as well as developmental progress. In terms of types, ceramics HBEs can be categorized into several groups.

It is suggested that HBEs are of various types (see Table 2.1). The category of level of resources views HBEs from a skills and resources basis. Also, types of HBE are categorized based on the business or economic activities at home (Raj and Mitra, 1990; Kellett, 1995; Tipple, 2004; Tipple and Coulson, 2007). In contrast, although it has been recognized that HBEs started due to the informal economy and as a livelihood strategy, a wider classification of types suggests a division of HBEs not only as survival ventures, but also by categorizing them based on economic development progress in terms of survival, security and growth (Pearson, 2004). Thus, the next section explores the character of HBEs based on current perceptions that they are part of both the informal and formal sectors.

Table 2. 1 Types of HBE

Types of HBE by the level of resources	Types of HBE based on business or economic activities	Types of HBE based on economic/ business developmental progress
Raj and Mitra (1990) • HBEs that require no skills or few skills • HBEs that require some skills or few resources • HBEs that require either entrepreneurial or a moderate to high level of skills and/or resources (p. 178).	Raj and Mitra (1990) Renting, retailing in small shops and regular outlets, livestock rearing, hawking and storage, tailoring/knitting, manufacturing and services from repairs, laundry for doctors and dentists	Pearson (2004) The development of home-based work in several countries in Latin America and Eastern Europe falls into 3 categories: • Survival • Security • Growth
	(Kellett, 1995: 212-213) • Activities related to the plot itself: growing pot plants; rearing hens and chickens; some also operate as a car park, particularly for safe overnight storage of vehicles • Workshops to make or repair things: vehicle repair, shoe menders, cabinet makers, dress maker. Other activities require space and/or facilities at the dwelling such as preparation of food for selling elsewhere or storage of recycled materials • Activities related directly to selling: corner shops • Service type activities: hairdresser, dentist or dental technician • Activities of a more social/community-based nature: schools, nurseries, primary health care. Sometimes these are run as a small business, but in other cases they are supported by official agencies or other organizations • Activities which are based at the house, but where much of the activity takes places elsewhere, such as a photographer with studio and darkroom • A final category usually relates to selling, but where few special arrangements are made	
	Tipple (2004): Small outlet to sell products or services for daily needs such as a small shop, coffee shop, or barber shop Small industry to produce, assemble or finish products Both small industry and outlets	
	ILO (Prugl and Tinker in Tipple and Coulson (2007)) Home-based occupations are: • Industrial homework • Crafts production • Food production and vending • New home-work related to information technology	

Source: Multiple sources

2.1.4. Characteristics of Home-Based Enterprises

2.1.4.1. Scale and Markets

On the topic of the smallness and informality of HBEs, according to Gough *et al.* (2003) HBEs tend to remain very limited and small, and their manufacturing or production capabilities are underdeveloped, so the range of types of HBE is limited, outsourcing is rare, and the market is mainly in the neighbourhood or local area, rarely reaching urban, regional and international markets. The same view has been presented by Strassman (1986), as HBEs are particularly related to neighbourhood characteristics, as suggested by his research in Lima, Peru. This divided the neighbourhood types into seven categories representing a continuum of formal to informal housing (such as small permanent units along an alley/courtyard, and clusters of huts made of interior materials). Implicitly, HBEs have a market in their immediate vicinity, namely at the neighbourhood level.

From a different perspective, according to Pearson (2004), for some the scale and market for the products of industry based at home could undergo growth development and gain access to a larger market:

> *At the other end of the scale are households that are in a position to achieve 'growth' on the basis of their informal income-generating activities. These are households or individuals with access to working or investment capital, who have secure markets, and who can operate with a healthy return on the basis of enhanced labour productivity. These are often the enterprises that either show high rewards or indeed are able to employ other workers, such as the many informal sweatshops in the Brazilian town of Novo Friburgo, which produce underwear for the domestic and regional market (Pearson, 2004: 141).*

In conclusion, the scale of home-based enterprises ranges from neighbourhood, local, regional (such as in the case of Brazilian sweatshops), to even international markets (such as in the case of Bulgarian knitters (Pearson, 2004)). Thus, HBEs can have access to either a relatively limited or a broader market, even reaching the international scale. Thus, there are various scale and markets of HBEs.

2.1.4.2. Continuity and Adaptability of HBEs: Growth of HBEs

According to Gough (2010), HBEs can survive for decades, and some can even expand. The factors which lead to their continuity and adaptability are time and the accumulation of infrastructure, location and the degree of entrepreneurship, and whether a growth of HBEs can be viewed naturally from both internal and external factors of HBEs. When continuity is the focus of maintaining the business, growth is more about expansion to the upper level of types of HBE.

Firstly, before explaining the internal and external factors of the continuity of HBEs, some background will be presented. One case study in Accra, Ghana, shows that HBEs are typical in developing countries and the study illustrates that the enterprises can survive in varying

degrees. Using around 20 years of longitudinal study into home-based enterprises, according to Gough (2010: 67), the study of Accra not only shows the temporary activity of HBEs, but also a high survival rate, as the majority of HBEs have operated for decades. In general, home-based enterprises are highly adaptable to changes over time. Home-based enterprises contribute significantly to a household's income, and in several cases the younger generation takes over the business from their parents continues the operation, possibly even expanding the business.

The first internal factor in the continuity of HBEs is the accumulation of infrastructure. The accumulation of HBE activities is depicted by the indication that the older the settlement, the higher the frequency of HBEs because more investment has been made in the infrastructure. According to Gough and Kellett, in the case of Santa Marta, Colombia, older settlements tended to have 29% more home-based enterprises than recently developed settlements (6-8%), due to the consolidation process creating more and better constructed rooms. Therefore, this increases the possibility of having home-based enterprises (Gough and Kellett, 2001; Gough, 2010; Kellett, 1995). Another case in the increasing possibility of HBE activity due to the improvement of infrastructure can be seen in Bangladesh and Nairobi (Kigochie, 2001; Ghafur, 2002). As a result, the frequency of home-based enterprises varies both within cities and between cities in developing countries, and it changes over time, as physical infrastructure serves as one influential factor in the presence of HBEs (Gough, 2010).

Location is the second internal factor for continuity. This can be seen from the success story of the continuation of business for some HBEs in the case of a compound house occupied by several family members, and renters who are not family members; in this case, their strategic location increases the visibility for potential buyers (Gough, 2010). Also, the extra space enables the proprietor to expand the business by adding more apprentices. The other common success factor in the continuity or even growth of HBEs is the degree of entrepreneurship that can meet the requirements for a certain product by filling a niche in market, and this relies upon an above-average level of education (Gough, 2010: 63). Here, social networks also have an important role in expanding the business.

In addition to the continuity of HBEs, the natural growth of HBEs can be divided into three levels, namely survival, security and growth (Pearson, 2004), and both internal and external factors are the causes of this economic development. Whether the internal factor of the continuity of HBEs is death, illness, or the age of the HBE household, being more educated and entrepreneurial are the most important internal factors in the improvement of their business (Gough, 2010).

From the view of external factors, according to Pearson (2004) demand for a local or even international market is part of a HBE. This is an important part of the continuity and growth of HBEs. The market is the most important external factor for continuity and development, as some products are saturated due to an over-abundance of the same product; oversupply and

high competition levels within the market can lead HBEs to collapse or even go bankrupt (Gough, 2010: 65). The HBE which can follow demand of markets seems to continue to grow.

An example of external factor which affect to the continuity and growth of enterprises are also as a case in several places. According to Raharjo (2009b), globalization as an external factor forms in international demand, has transformed HBEs in Kasongan, Indonesia, where previously almost all the businesses were small and traditional, although some were middle level HBEs with a local market. Some HBEs have become more international, as the demand for the art village was triggered by international tourists coming to the area. Some ceramic HBEs have seen growth and larger scale of production; however, the businesses have maintained the production or part of the production placed in the house or plot. This is caused by place attachment, as the HBE householders have an emotional bond to the house where they live (Dovey, 1985). In addition to the house, place attachment can also be analysed from the view of attachment to the neighbourhood or community (Hidalgo and Ndez, 2001). As well as the level of development of a HBE and the reasons for growth, the next section contains a discussion of the problems of the development of HBEs.

2.1.4.3. Some Challenges to the Development of HBEs

The growth of HBEs can also experience several problems (Gough et al., 2003). In general, the limits to the growth factors of HBEs are lack of finance, competition, availability of space, and crime.

Firstly, according to Gough et al. (2003: 266), a lack of finance is one of the limitations as the available capital is very low. When expansion is needed, for some people it is delayed because of a lack of capital (Ligthelm, 2007). In Ghana, it is difficult to obtain a formal loan, such as loan from a bank, particularly for low income people. However, loans pose the high risk of becoming trapped in high debt, as the interest rates are high. The same fact is also seen in the South Africa case:

> *A lack of financial support was widely viewed as one of the main problems facing entrepreneurs in South Africa … does not stand out as having a financial system that is reluctant to support entrepreneurs…' (Ligthelm, 2007: 207).*

Furthermore, Ligthelm (2007) argues that the entrepreneurs' own savings, and their access to informal investments from family or friends, become more important sources of capital, particularly when starting up. This process was also apparent in the Spaza shops in South Africa.

A study by Tipple and Coulson (2007) depicts four cases (Bolivia, India, South Africa and Indonesia) which show that micro-credit is one source of business finance for HBEs. Micro-credit has become a trend since the Grameen Bank of Bangladesh helps low income people, particularly women, in establishing and running micro-businesses. The process of obtaining this micro-credit requires no collateral, only the commitment of the group to repay the loan if any troubles are experienced by the members of the micro-credit group. The Grameen Bank in

Bangladesh has been the model for financing micro and small enterprises where HBEs form part of the venture. The research into funding for HBEs in four developing countries illustrates various facts: for example, in Surabaya, Indonesia, the HBEs propose formal credit through BRI, or state-owned banks. These four studies into HBE funding in developing countries also reveal various other facts, including successful micro-credit financial support. Recognizing the high percentage of the distribution of formal loans in Bolivia has shown that this programme is successful. Almost all HBEs are financed by this micro-credit in the 'solidarity' method of group loans. Many other credit organizations offer various methods of providing the loans; some offer individual loans, but most follow the Grameen Bank method of 'solidarity'. Micro-credit from the Banco Sol has a lower interest rate than that of neighbourhood money lenders, but has a higher rate than the market rates. In India, many forms of micro-credit are provided, for example in the form of a ROSCA (a rotating saving and credit association).

The case of South Africa portrays other methods of financing HBEs in developing countries. Traditionally, the use of formal banking is not common for low income people, due to the difficulty in dealing with small amounts of micro-loans. Therefore, from 1996, the Department of Trade and Industry introduced Khula, a limited enterprises finance, to facilitate credit for micro, small and medium enterprises. Other financial institutions also offer micro-loans, but the interest rate is relatively high, so these are not easily accessed by low income people. In 1999, a scheme in Sizabantu, with support from several foundations in the private sector, provided a slightly different form of financial support, as it supplied 'mentors' to recruit, help and assist the borrower. Another finding from a study in South Africa and Indonesia identified that HBEs commonly use a husband's or wife's salary for capital in order to run the business (Tipple and Coulson, 2007).

Tipple and Coulson (2007) propose that in the cases of four developing countries, micro-credit or other formal loans are difficult to access for HBEs. Therefore, sources for small loans which can be accessed by low income people range from interest-free loans from relatives or family members, to unsecured credit from suppliers, due to the high interest rate from local money lenders. Tipple and Coulson (2007) show that micro-credit for HBEs in India is successful because there is no record of defaults for loan repayment. It seems that micro-credit in Indonesia is not as successful as in India since credit from BRI that should provide collateral is inaccessible for HBEs. Some HBEs in Indonesia can access a group capital loan from the local office for Cooperation and Support for Small Industry. It is only HBEs in Cochabamba, Bolivia, which are familiar with formal credit as the nation has a relatively high proportion of HBEs funded by a formal loan, namely two out of five HBEs, whereas the other countries have a maximum of 8% of HBE business borrowers receiving funding from formal institutions. Even though Bolivia is successful, it still has problems, as several hunger strikes directed at the micro-credit management illustrate. In relation to this study, finance in various forms, namely from savings or micro-credit, can be an asset to the growth of HBEs, but there can also be a problem when HBEs lack access to such resources. The depiction of financial capital forms part of the subsequent analytical chapters.

The second challenge of the growth of HBEs is competition. Competition is also a limit on the growth of HBEs. As the amount of similar economic activity increases, such as small shops, the competition increases, and some HBEs have to close. Furthermore, the competition comes not only from the informal sector, but also from the formal sector, such as when as a low price supermarket becomes a new competitor in the Pretoria case (Gough et al., 2003). Strong competition or a small number of customers is also one of the problems faced by Spaza retail and South African HBE owners (Ligthelm, 2007). From the case above, it can be seen that competition is one obstacle to the growth of HBEs.

Thirdly, the availability of space is another limitation on the growth of HBEs. The Accra case shows that an HBE usually occupies one or two rooms in a limited space of 12-24m2; in the Pretoria case this is 28m2. The inability to move out to obtain a more spacious place or to expand the space in the plots due to a lack of finance affects the growth of these HBEs (Gough et al., 2003). Space becomes an important area of analysis in the study of HBEs, as space at the dwelling/house or plot is used in HBE activities. Thus, in the analysis of the post-disaster context, space/physical capital is analysed in Chapter 4 in context and in Chapter 5 in the analysis section.

The last challenge, crime is the next challenge for the growth of home-based enterprises. In Accra and Pretoria, crime is highly likely to occur in high-density, low income housing in urban areas. However, it depends on the type of product that the HBE is selling: liquor can cause people to commit crimes such as fighting (Gough et al., 2003). Similarly, crime is also a problem experienced by Spaza retail owners (Ligthelm, 2007). In this way, crime is an obstacle to the growth of HBEs in several countries; however, in other countries this might not be the case.

2.1.5. Implications for the Existence of HBEs

2.1.5.1. HBE Policy

It seems that there is a connection between housing, HBEs, and housing policy related to HBEs. A house is a place for security and enables income generation for the household (King, in Chapman 2005); thus, an appropriate policy for HBEs should be in place, as argued by Gough *et al.* (2003: 68):

> *As the longitudinal study has shown, home-based enterprises are here to stay and are not an anomaly. Planning regulations which attempt to separate residential and income-generating activities are clearly inappropriate. Rather, the contribution of home-based enterprises should be recognized and supported. The ability of the home-based operators to survive and adapt to changing circumstances has been clearly illustrated. In these times of economic hardship and uncertainty, they may well prove to be the winners.*

Furthermore, policies can also threaten the existence and continuation of HBEs: this happened in Ghana, where the opening of the market to imported products has directly impacted upon bags produced by HBEs. Another example of how policy can affect the continuation of an HBE

is the case where only a school can sell textbooks and exercise books, and this has affected stationery store HBEs (Gough, 2010: 65).

2.1.5.2. Differentiation of Types of HBEs: the Resilience of HBEs

Housing studies indicate that the study of HBEs focuses on informal settlements or low income housing. In contrast, in developing countries, the existence of a wider range of HBEs is suggested by Pearson (2004) in her study of home-based workers in Latin America and Eastern Europe. These different types of HBEs will be explored to assess the contributing factors in the resilience of HBEs in a post-earthquake situation. According to Pearson (2004), based on her study, the development growth of home industries consist of survival, security and growth types. The survival stage applies for the early stage of HBEs which is in low income, and tend have a limited profit, seems only can operates in limited scale. For a type of security/secure HBEs, it seems has a wider scale of operation, and has a secure position of operation of the business as it seems has a stabile operation. The growth HBEs is a highest development level of HBEs, as it is not only operates for survival but also both secure and grow of business development, as HBEs expand.

Also, this study recognizes the various types of HBEs. Tipple (2004) suggested three types of HBEs: 1) industry or production or home-industry, such as a craft-home-industry; 2) trade, such as a small shop or house-shop; and 3) a mix of the first and second in both industry and trades of HBEs. Based on economic terms, the division into subcontractor or dependent and micro-entrepreneur or own-account worker seems useful to differentiate the role of HBEs in the economy, although this distinction is also problematic in some respects.

Furthermore, the types of HBEs based on scale are varied, and thus this study used the categorizations of survival, security and growth perspectives of business performance of HBEs as Person study (2004), which were recognized as 'natural' growth. In addition, this study also covers the difference of types, which seemingly as part of how their resilience emerged. In order to understand certain vulnerabilities included due to disaster, so the next part of the literature review covers the post-disaster context as part of the literature review.

2.2. Post-Disaster in the Literature

From the point of view HBEs in the literature, the post-disaster context is important to gain knowledge of recovery responses, as it helps in gaining an understanding of the recovery of HBEs in the case study area.

2.2.1. What is Meant by Post-Disaster Reconstruction?

Disasters threaten human survival, and human survival research has grown as a natural response to such threats. As such, Herz (2010) proposes an interdisciplinary approach as a

better way to understand disaster responses aimed at human survival. Based on a common definition from the United Nations Office for Disaster Risk Reduction (UNISDR), a disaster is:

> *[a] serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.* (Lizarralde et al., 2009).

According to Lizarralde et al. (2009: 266) the built environment, particularly housing, is important in post-disaster reconstruction for the purpose of rebuilding lives and livelihoods. One required additional intervention is economic reconstruction, as well as interventions such as humanitarian aid and medical assistance. Post-disaster reconstruction, therefore, is defined as:

> *The process of improvement of pre-disaster conditions, targeted to achieving long term local development and disaster risk reduction through the pairing of local and external sources, thus giving residents increased access to both 'hard' and 'soft' resources.(Lizarralde et al., 2009: 5).*

2.2.2. Where Vulnerability Fits in

As part of post disaster in literature review, it is important to explore the concept of vulnerabilities. According to Alexander et al. (2006:34), vulnerabilities are the 'characteristics and circumstances of a community, system or asset that makes it susceptible to the damaging effects of a hazard'. Based on Lizarralde et al. (2009:3), vulnerability can also be seen as a lack of access to resources such as finance, housing, roads, infrastructure, and public services, as well as insurance, decision-making capacity, education and information. To respond to vulnerability, reconstruction is needed after a natural hazard. A common view of reconstruction is 'the group of actions taken to re-establish a community after a period of rehabilitation subsequent to a disaster' (Lizarralde et al., 2009: 3). Actions could include construction of permanent housing, full restoration of services, and the complete resumption of the pre-disaster state. Figure 2.1 shows that vulnerability reaches the maximum level when a disaster has just taken place, and it is eliminated gradually by the reconstruction activities; at a certain level recovery occurs and thus there is a return to the pre-disaster level, or possibly even beyond the pre-disaster level. This upper level of the pre-disaster scenario is designed with regard to the capacity for increasing effort towards better future protection, i.e. 'resilience', which is defined by the UNISDR as follows:

> *The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase this capacity for learning from past disasters for better future protection and to improve risk reduction measures (in Le Bosher, 2009).*

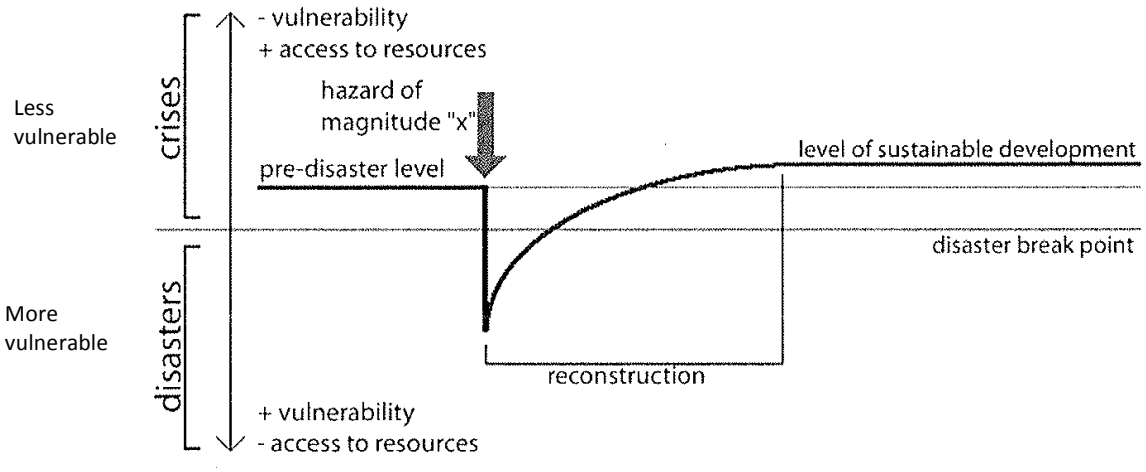

Figure 2. 1 Model Illustrating the Concept of Vulnerability and Post-Disaster Reconstruction
Source: Lizarralde, *et al.*, 2009:5

When a disaster strikes, market forces tend to pressure for the reconstruction as quickly as possible of built assets such as water supplies, transportation networks, healthcare facilities and commercial buildings. This is necessary to minimize post-event economic losses, to reduce the social impact, and to give a positive impact to political ratings by creating an impression of a government that responds in an 'appropriate' manner (Bosher, 2008).

It is also argued that the magnitude of a crisis and a disaster are different: a disaster is worse than a crisis, so the access to resources in a crisis situation is higher than in a post-disaster situation. Conversely, vulnerability in a post-disaster situation is much higher rather than in a crisis situation. Thus, reconstruction or post-recovery responses are important in order not only to reach a point beyond 'disaster break point', but also to have a sustainable condition for unpredicted future disasters (Figure 2.1).

2.2.3. Post-Disaster Management: Resource Dimensions and Level of Improvement

It is believed that post-disaster reconstruction evolves as a long term perspective, and it is not designed to provide protection for the short term. It also needs a fast response and embraces multidimensional perspectives. Furthermore, it should be recognized that the level of development of a community has two dimensions of resources (Lizarralde et al., 2009), namely:

- hard resources, which are tangible and have physical dimensions, such as housing, infrastructure, and public services;
- Soft resources, which are non-tangible, such as employment, education, and information.

Reconstruction must embrace the two types of resources, so that long term sustainability will take place. The improvement is not only to return the level of development to a point which allows access to lost resources, but that it should also develop this access in order to achieve a better level than the pre-disaster level. In doing so, the survivors will be prepared to face future natural hazards.

Disaster seems to be cyclical and involve different stakeholders. A disaster is the cause of discontinuity of the livelihood process; thus, post-disaster management is important in order to make conditions better. The post-disaster cycle entails several activities in relation to rescue, relief, rehabilitation and preparation for upcoming disasters, which needs various stakeholders, not only from the people or community, but also from NGOs and governments (see Figure 2.2).

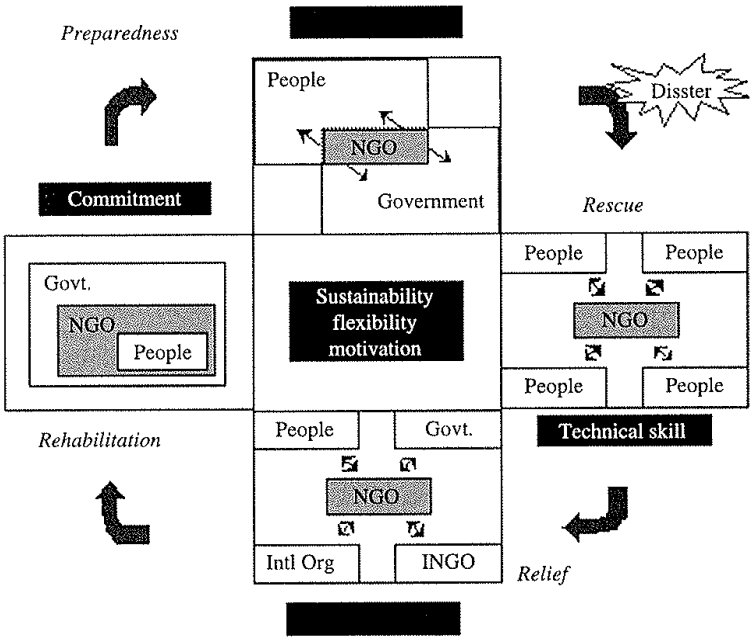

Figure 2. 2 Disaster Cycle and the Role of Different Stakeholders
Source: Lizarralde *et al.*, 2009: 4

Earthquakes can destroy huge areas; however, the time span needed for recovery varies in each country (Shaw, 2006: 7). For example, when Mexico City was devastated by an earthquake in 1985, the reconstruction period was two years. This earthquake resulted in the loss of 5,000 lives and destroyed 48,000 houses. Other reconstruction due to earthquake devastation occurred in 1993 in Latur, Maharashtra, India, and required four years for reconstruction because a huge number of houses (230,000) were destroyed and 8,000 people were killed. Kobe's 1995 earthquake killed 6,400 people and destroyed 134,000 houses, which required around four years for reconstruction, with social recovery continuing until 2006 (Shaw, 2006). A massive earthquake in Turkey in 1999 left 9,000 people dead, and the reconstruction programme took more than three years. Four years were needed to reconstruct Gujarat following an earthquake in 2001. Almost all of these earthquake

reconstruction processes needed three to five years for reconstruction (see Shaw, 2006; Shaw and Goda, 2004; KAP, 2001).

According to Shaw (2006), the standard time-frames for rescue, relief and rehabilitation are defined as seven days, three months and five years (Figure 2.3). In particular,

> *the short term plans of the recovery process are clearance of debris, building housing units, restoration of the lifelines and infrastructures, while the long term objective is to build a safer and sustainable livelihood (Shaw, 2006: 8).*

Furthermore, there is various process of post-disaster management. According to Quarantelli (in Johnson (2007), reconstruction can be divided into four phases: emergency shelter, temporary shelter, temporary housing, and permanent housing. However, it also can be categorized into three stages, in which the first and second stages (shelter) are combined into one category, hence: emergency housing, temporary housing and permanent reconstruction (Lizarralde et al., 2009).

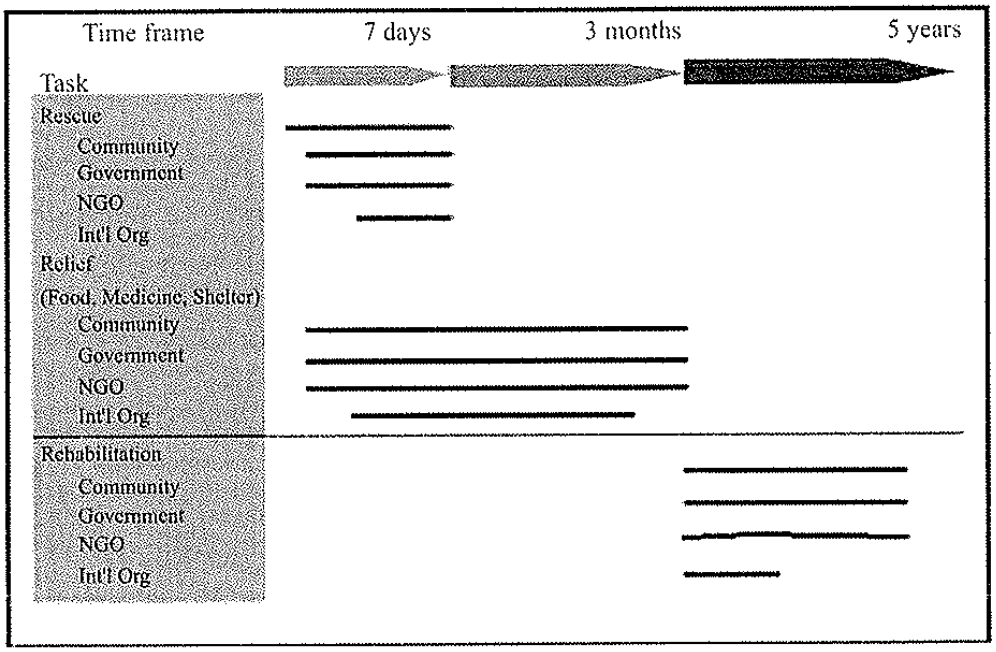

Figure 2. 3 Schematic Diagram Showing the Tentative Time-Frames of Post-disaster Processes and the Roles of Different Stakeholders

Source: Shaw (2006: 8)

2.2.4. Shift from Disaster Management to Disaster Risk Management

Post-disaster management should connect to vulnerability reduction and the human security context. Different stakeholders need to take part (Shaw and Goda, 2004; Shaw, 2006). The shift approach to disaster risk management can be applied using a sustainable livelihood framework to understand the potential livelihood strategies of the vulnerable people previously involved in fisheries in Aceh (Alexander et al., 2006: 31).

Historically, disaster management has focused upon:

> *Post-disaster response and humanitarian response assistance efforts that expended significant amounts of resources that could have been allocated for vulnerability reduction and development efforts. Although these efforts have provided valuable assistance to communities in crisis, they have done so without consideration of possible inadvertent increases in overall disaster risk and the need for future assistance by increasing vulnerability and reducing coping capacities (Twigg et al, in Alexander et al, 2006).*

This then shifts to disaster risk management (DRM) since this approach has a better understanding of the benefits of mitigation and adaptation, and the link between disasters and development, and the roles of community participation and community capacities. The most important aspect of DRM is that this approach has evolved as a paradigm under which disaster management actions can be integrated into an overall dynamic sustainable development approach, which means it takes a long term management view. Through facilitated participatory assessment of perceived current and future risks and alternative integrated options for reducing the risks that are determined to be unacceptable, the DRM process aims to enable concerned community stakeholders to mitigate these unacceptable risks through their existing capacities and through requested assistance for development of sustainable capacities they lack. The DRM process, as has been shown in the aftermath of the 2004 tsunami in the Pacific, aims to ensure that recovery assistance does not only concern the reconstruction of pre-existing risks, but also contributes to long term development and vulnerability reduction (Alexander et al., 2006; Benson et al., 2007; UNISDR , 2012). A common principle of this developmental recovery includes the aims not only of meeting immediate needs, but also long term development by using participatory approaches to ensure the development of local capacities through assets provision and livelihood transformation (Benson et al., 2007).

Vulnerability is determined by access to self-protection and social protection. Therefore post-disaster vulnerability reduction must not only strengthen social protection through support to relevant institutions, but also strengthen self-protection through reinforcement of livelihoods (Cannon, in Alexander et al. (2006)). For the long term, vulnerability reduction aims at activities that should not only provide for initial needs such as home, payment, services and psycho-social provisions, but enable sustainable livelihoods that can enhance self-provision capabilities (Alexander et al., 2006).

In summary, DRM has to strengthen self-protection through reinforcing livelihoods by addressing the vulnerability reduction effort over the longer term, as this is also part of the programme of post-disaster reconstruction.

2.2.4.1. Understanding DRM in Systems Approach: Pressure and Release Model

The pressure and release model has been adopted in an attempt to understand how to reduce the impact of disaster (Figure 2.4) (Alexander et al., 2006). Livelihood is defined as ‘a range of

resource arrangement strategies of production, consumption, and exchange for improving human living conditions' (Twigg, 2004; Allison and Ellis 2001; Alexander 2006). Household, intra-household, community, and extra-community factors determine both the access to resources and the transformation strategies adopted during both ordinary and crisis periods (Vatsa, in Alexander et al., 2006). From the description in Figure 2.4, it can be seen that while higher-level efforts should address root causes, reduce dynamic pressures, and reduce hazards and impacts, the sustainable livelihoods approach focuses on community-level strategies for improved livelihood activities (Allison and Ellis in Alexander et al., 2006).

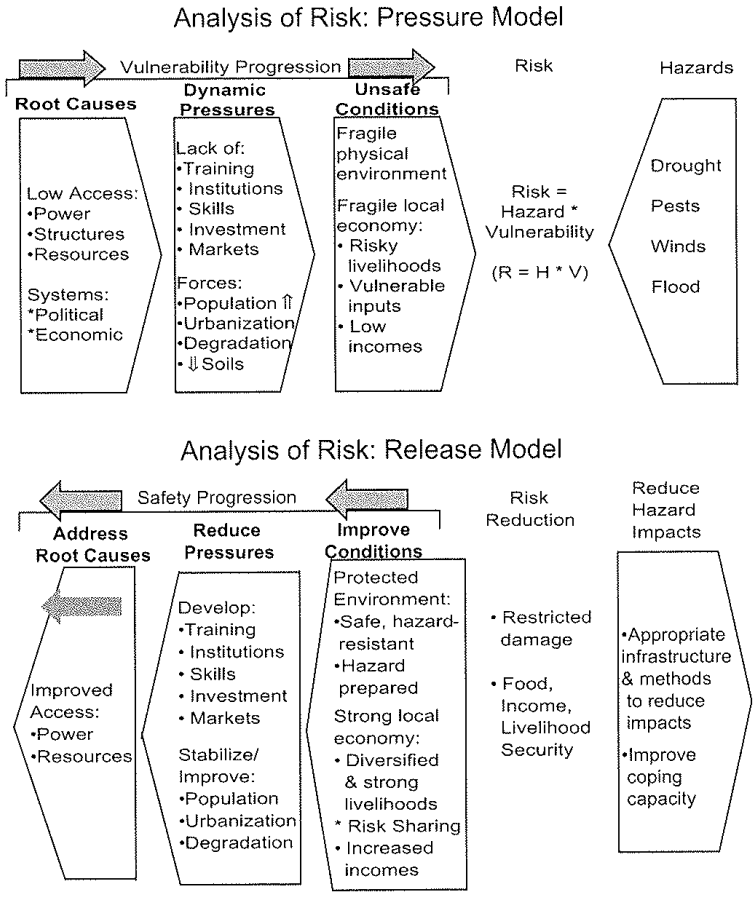

Figure 2. 4 Analysis of Risk: the Pressure and Release Model (the Case of Aceh)
Source: Alexander *et al.* (in Shaw, 2006: 38)

2.2.4.2. Factors Contributing to The Successes of Post-Disaster Reconstruction

The factors that contribute to the success of post-disaster reconstruction are varied, such as community participation, institutional issues and networks, and organizational design and coordination. Lizarralde (2009) argues that speed of reconstruction is important but, besides this, the success of post-disaster reconstruction also requires an understanding of local needs, and a proper understanding of the roles and capacities of the multiple actors involved, rather

than merely relying on community participation. Also, institutional issues and networks are important (Lizarralde et. al, 2009: 1; Mulwanda, 1991).

The first reason is not the construction activities, but the acquisition of land and the legal and administrative procedures in development, which commonly lead to delayed reconstruction. Secondly, for most of the survivors, housing is not their only priority, as employment opportunities, closeness to relatives and friends, and access to health services and schools are also important, and so the speed of recovery is not the most important. In the cases of Honduras, Nicaragua, and El Salvador, it can be seen that survivors have sometimes abandoned the houses offered to them due to a lack of infrastructure or because they are too far from their needs, even if the houses are free.

Community participation is important in post-disaster reconstruction (Davis, 1978; Lizarralde et al., 2009). Lizarralde et al. (2009) also suggest the importance of actions through the reinforcement of local strengths, a point which is also argued by the United Nations Disaster Relief Organization (UNDRO) in a 1982 publication which states that 'the key to success ultimately lies in the participation of the local community –the survivors –in reconstruction'.

The success of community participation is shown in four examples of post-disaster reconstruction projects in Colombia, Honduras and El Salvador, conducted between 1999 and 2004 by Gonzalo Community participation. Such bottom-up processing is important in facilitating a sense of inclusion rather than exclusion for the community (Berke and Campanella, 2006; Lizarralde and Massyn, 2008). In contrast, according to Berke and Campanella (2006) this does not always work when relying upon the community alone. A community participation scheme in a self-help post-earthquake housing project in El Salvador in La Hermanidad poses the problems of social tension and hostile behaviour within the community –far from being good neighbours with a social cohesion among the community suggested by the community participation concept, because the project management relied on a top down approach (Davidson et al., 2007).

Lizarralde argues that the success of post-disaster reconstruction does not depend solely on community participation; instead, it is complemented by organizational design and the coordination of different participants. Thus, community participation can be implemented in certain parts of the whole process of the reconstruction itself, for example the community involvement may only be in construction activities, while other activities such as design, planning, management and financing are not their responsibility. According to Lizarralde and Massyn (2008), the negative side of community participation which can affect a city or community was recorded in three low-cost housing projects in Cape Town, South Africa. Short term community decision-making has impacted negatively on the environment, economic and social development across the medium and long term.

The Making Cities Resilient campaign is a United Nations Office for Disaster Risk Education (UNISDR) agenda aiming 'to build resilience to disasters and increased support by national

governments to cities for the purpose of strengthening local capacities'. Therefore, local government has a strategic position as they are the closest level of government to citizens and their communities, and they play the first role in response to crises and emergencies (UNISDR, 2012).

2.2.5. Informality and Disaster Vulnerability in Developing Countries

According to Lizarralde *et al.* (2009:4), the post-earthquake situation in developing countries is not only the result of natural disasters: the scale of the disaster also worsens due to other aspects, such as political, economic and social circumstances. They argue that 'they are the result of the fragile relations between the natural and built environments'., The Pressure and Release Model (Blaikie, 1994; Wisner et al., 2003) was developed to describe how vulnerabilities are related to unsafe conditions coming from existing dynamic pressures caused by social, political, economic and cultural factors in the system. In the case of Turkey's earthquake, the basic causes could be in the form of dynamic pressures originating from political, economic or social circumstances. Migration and urbanization processes contribute to informal settlements, which have unsuitable and inappropriate building construction. Thus, by this approach, it is clear that a disaster occurs when unsafe conditions meet with a natural hazard, and therefore such an earthquake in developing countries is not a 'natural' phenomenon, but rather a condition worsened by other aspects (Lizarralde et al., 2009).

In contrast to the case in developed countries, post-natural-hazard reconstruction in developing countries is not merely to reconstruct livelihoods and housing as before the earthquake. It is also, as mentioned by Lizarralde et al. (2009) in the vulnerability context above, that the reconstruction may require double effort in a post-disaster context (Figure 2.5). For example, in the case of Turkey or in other developing countries, an earthquake may worsen conditions and many fatalities may occur as the construction of the houses are lacking in quality and are not strong enough to protect the residents from the earthquake, e.g. if the roofs or the buildings were destroyed, resulting in the loss of many lives. Due to informality and the lack of regulation of many houses, the construction is not strong. It was different with the Japan earthquake in March 2011, when it was struck by a tsunami. In fact, the buildings did not collapse as they were of good quality and well-designed to cope with an earthquake, which meant that the housing was formal housing. A review of the informal sector, as is commonly apparent in developing countries, is important, particularly in the post-disaster reconstruction context.

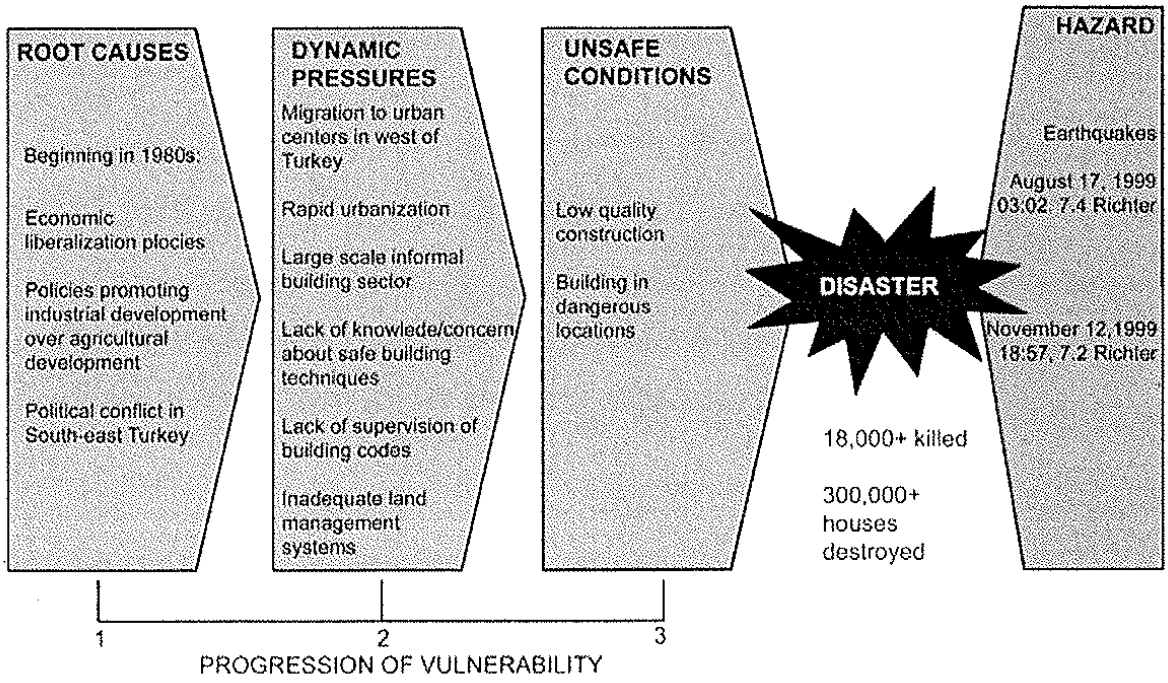

Figure 2. 5 A Vulnerability Model of 1999 Earthquakes in Turkey.
Source: Lizarralde *et al.*, 2009: 4

On the same subject, Hamza and Zetter (1998) argue that urban areas in developing countries are not necessarily disaster prone by nature, but 'become' disaster prone because of structural processes –in macroeconomic policy –which creates rapid urbanization, population movement and concentration. Furthermore, the marginalization occurs when migrants from rural areas lack the capability to access resources; informal activities are one of the symptoms of this, as well as the exclusion from planned and serviced areas included from land and housing. Consequently, this leads to vulnerability.

In summary, in some developing countries, informality is a consequence of structural processes, and thus some residents become prone to disaster due to their housing location. For example, about 43% of the total land, 51% of the population, 75% of the industry, and 31% of the dams in Turkey are located in the most dangerous areas, as represented by a disaster zoning map of Turkey (Mustaf Erdik, in Parker et al., 1995). From the phenomenon of the informal context of disaster, we move to one of the ways to approach the problem caused by informality by learning from informal settlements in order to develop post-disaster low income housing. These will be looked at in the next section.

2.2.6. Learning from Informal Settlements: Post-Disaster Low Income Housing

Based on his research team's projects during the period 2002 to 2008, Lizarralde et al. (2009) propose that post-disaster reconstruction in developing countries can be learnt from the informal sector. This is an innovative way of improving housing programmes, particularly if using new examples from Latin America and South Africa.

In general, some of the evidence from Lizarralde's study (2009) suggests a better post-disaster housing strategy by learning from the poor informal settlements. The pattern consists of fourteen types: flexible use of enclosed and open spaces, a combination of various storey units, priority given to interior comfort, unclear distinction between the original core and later additions/modifications, progressive approach, variety of facades, great variety between housing units, intensive use of recycled components and materials, a combination of different materials and technologies, the variety of functions and uses, mixtures of residence and income-generating activities, strong emphasis on safety, the variety of open spaces, the hierarchy of streets and paths, and the variety of plot sizes and forms.

The analysis is depicted in Table 2.2. Lizarralde combines his research from slum-upgrading projects located in Colombia (letter a) and South Africa (letter b) with research into informal settlements in Indore, India (letter c) by Bhatt and Rybczynski, as well as research in New Delhi, India (letter d) by Kellett and Tipple. The control group comprises various formal solutions for post-disaster housing and regular affordable housing (letters e to j).

The formal solutions for post-disaster housing are:

- The case of Choluteca, Honduras, a post-Mitch reconstruction project relocated about 2000 families in 1999, and the projects were single-storey detached units, involving more than 13 local and international NGOs (letter e).
- The case of La Paz, El Salvador, a post-earthquake reconstruction project: 36m2 detached houses developed in 2001 and 2002, by an NGO (letter f).
- The case of El Cantarito in Colombia, a relocation project on 72m2 masonry units due to an earthquake in 1999, by an NGO (letter g).
- The case of Calarca, Colombia, a post-earthquake housing project, by an NGO (letter h).
- The case of an affordable in sub-sized housing targeted to reduce disaster vulnerabilities, developed by Municipality of Facatativa, Colombia (letter i).
- The case of a community-based project for subsidized housing in Netreg, Cape Town (letter j).

Table 2. 2 Occurrence of Patterns in the Settlements Studied

	Patterns Found	Informal Housing				Formal Housing					
		Colombia(a)	Cape Town(b)	Indore(c)	New Delhi(d)	Honduras(e)	El Salvador(f)	El Cantario(g)	Calarca(h)	Facatative(i)	Netreg(j)
1	Flexible use of enclosed and open spaces	■	■	■	■	▨	▨	■	■	▨	▨
2	Combination of one-, two- and three -storey units	■	■	■	■	▨	▨	▨	▨	▨	▨
3	Priority given to interior comfort and quality of the interior spaces, with limited interior subdivisions	■	■	■	■	▨	▨	▨	▨	▨	▨
		■	■	■	■	▨	▨	▨	▨	▨	▨
4	Unclear distinction between the original core and later conditions/modifications	■	■	■	■	▨	▨	▨	▨	■	▨
5	Unclear distinction between temporary units and permanent houses. Progressive approach, with quick first construction and no clear end to the building process	■	■	■	■	▨	▨	▨	▨		
6	No uniformity in façade. Variety of textures and colours	■	■	■		▨	▨	▨	▨	▨	▨
7	Great variety between housing units	■	■	■	■	▨	▨	▨	▨	▨	▨
8	Intensive use of recycled materials and components	■	■	■		▨	▨	▨	▨	▨	▨
9	Combination of different materials and technologies. Progression from 'light' to solid technologies	■	■	■	■	▨	▨	▨	▨	▨	▨
10	Variety of functions and uses. Mixture of residence and income generation activities	■	■	■	■	▨	▨	▨	▨	▨	▨
11	Strong emphasis on safety from the theft and robbery. Delimitation of the land and fencing are priorities	■	■			▨	▨	▨	▨	▨	▨
12	Variety of open spaces	■	■	■		▨		▨	▨	■	▨
14	Hierarchy of streets and paths	■	■	■		▨	▨	■	▨	■	▨
14	Variety of plot sizes and forms	■	■	■	■	▨	▨	▨	▨	▨	▨

■ Yes ▨ No □ NA

Source: Lizarralde *et al.* (2009)

In accordance with the topic of this research, which focuses on home-based enterprises affected by disaster in developing countries, consideration should be given to one of many patterns, particularly in the recognition of the variety of functions and uses and the mixture of residence and income-generating activities. The phenomenon of the mixed functions of the house is commonly found in developing countries, particularly in informal housing or rural housing. Such 'inseparable interdependence of domestic and income-generation activities' are organized by changes of space use during the day, as 'thus the domestic space might serve for storage, workshops, stores or small manufacturing'.

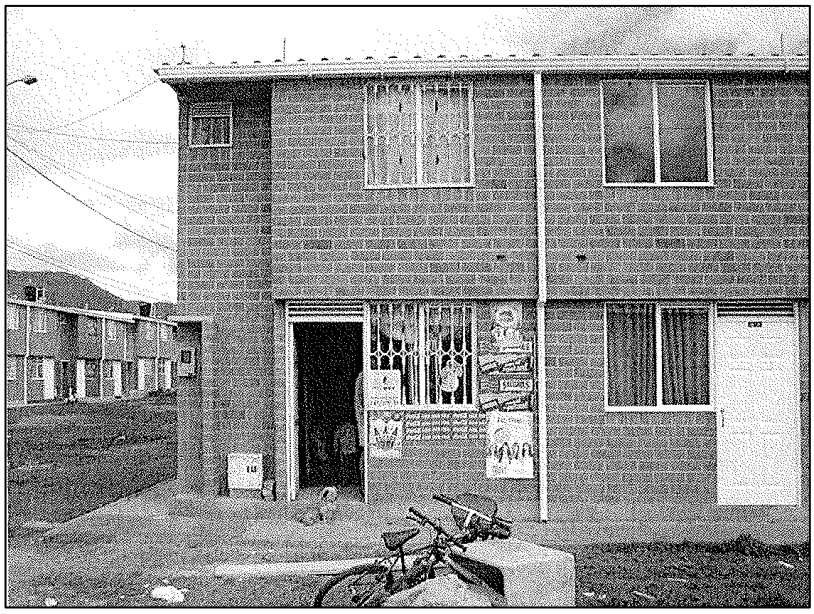

Figure 2. 6 House-shop Businesses after Three Months of Resettlement in Facatativa, Colombia

Source: Lizarralde *et al.*, 2009: 42

2.3. Concluding Remarks

The role of the literature review in the qualitative research of a case study aims to provide a framework of guidelines for analysing the findings of research based on a related body of knowledge in a certain area. Also, the literature review helps to understand the relationship between the body of knowledge in a certain area and the research problem. In consequence, through a literature review, the research is able to fill a gap between the existing theoretical perspective and the findings of the research.

As a part of the literature review, this chapter has reviewed a series of different studies regarding HBEs and post-disaster recovery. In conclusion, the current perspective of HBEs is that they have been viewed as economic activities with specific characteristics, namely being small in scale and related to informality. Furthermore, a varied and wide range of literature becomes a literature basis for the research, covering another dimension of home-based enterprises literature, including empirical studies which show adaptability through changes over time, which is one of the keys to the continuity of home-based enterprises. The important part of the HBEs in literature is the provision of the basis of social capital analysis from among differentiation types of HBEs, which could be connected to each other. By exploring the development level of this home business, it will be recognized that the HBEs cannot always be traditional, small and informal but also in more varied types of HBEs.

Another part of this literature review which is in a smaller portion is the literature of post-disaster. By having recognized that the research question focuses on social-assets in the resilience of HBEs, the role of post-disaster literature is in a limited function, as it is more about in giving context and better understanding of the post-disaster situation and responses. In this way, by design, this post-disaster literature is not part of the analytical framework, for example the post-disaster management, as this study does not intend to study post-disaster management. However, post-disaster in the literature gives a view of the long term dimension of post-disaster management. Also, in the context of developing countries, informality has led to earthquakes or other disasters being not only 'natural' disasters, but also subject to other factors that worsen the impact of the disaster, namely political, economic and social conditions. In many situations, the quality of housing is low, thus increasing the number of fatalities when an earthquake occurs. One approach is to provide a model of post-disaster housing reconstruction by adapting an informal settlement upgrade (Lizarralde et al., 2009). By recognizing the situation of the informality, it is understandable that disasters in developing countries tend to have more fatalities due to the collapse of houses. However, at the same time, a house is important, particularly for HBEs household.

Thus, this chapter provides a tool in the understanding of HBEs in a post-disaster perspective. The next chapter will be a literature review for the analytical framework, particularly a Sustainable Livelihood Analysis. The whole framework of the literature review as guidance, and the direction of study, will be provided at the end of the literature review in the upcoming chapter (section 3.3).

Chapter 3

The Sustainable Livelihood Approach and Resilience

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3.1. Introduction

The focus of this study is to understand the resilience of HBEs in the post-earthquake situation, particularly the question of : How do HBE households demonstrate resilience in post disaster recovery? An analytical framework and tool are then needed, particularly to explore capitals which support adaptation and coping with post-disaster situations. In doing so, the Sustainable Livelihood Approach (SLA) is used for the analytical framework, particularly in understanding the role of dominant capital(s) of HBEs and the phenomenon of resilience.

This chapter as the second part of Literature Review provides the arguments for using the SLA as an analytical tool. The theme of the SLA is separate from HBEs and post-disaster, discussed in chapter 2, as the SLA has a different role from the perspective of both the method and literature review. Before the explanation of the SLA and its application, a leading motivation of the usage of this approach is its strength in understanding the contexts of vulnerabilities, including on the household level, and its ability to understand the contexts of vulnerability. The SLA is therefore the most appropriate approach to understand the post-disaster situation.

Firstly, the SLA is an appropriate tool to understand adversities at the household level. The SLA as an approach is strong in understanding vulnerabilities and the coping process in dealing with adversities. This approach has similarity with other approaches which also recognize that poverty is an adversity which needs to be resolved or adapted. Historically, SLA was introduced to acquire a deeper understanding of poverty (Scoones, 1998; Farrington *et al.*, 1999; Arce, 2003; Swift, 2006), and it is in line with the approach of Friedmann (2011) which also has the purpose of understanding vulnerabilities, particularly poverty, in society. Friedmann (2011) argues that from the perspective of planning, poverty alleviation is part of social transformation, which then needs social empowerment, which is based on the role of households in gaining access:

> *Social empowerment seeks to facilitate the access of households to certain strategic bases of social power. By gaining access, households are put in a position where they can begin to be the producers of their own lives and livelihood instead of merely reproducing the conditions of their own poverty (Friedmann, 1992).*

Thus, the household as an economic unit (Friedmann, in Healey (1997) becomes crucial and has an important role to play in adapting to adversities, not only poverty, but also in relation to the post-disaster context. The household then becomes part of the network and power relation in social life (Healey, 2004). Furthermore, beyond household matters, the involvement of many actors who face real situations of everyday life should be accounted for, namely organized social groups or larger groups, not solely governments, which are not bounded by territorial considerations:

> *'The relevant actors in this struggle for a new society are individual households that have opted for the alternative; organized social groups based in the local community; and larger, more inclusive movements, not bounded by territorial limits (Friedmann, 2011).*

Surely poverty is different from the post-disaster situation; however, the similarity is that both need coping strategies. As originally the SLA was designed to understand poverty, other approaches which have similarity in terms of capitals or assets in understanding poverty, then these approaches are compatible with the SLA in understanding the adaptation and coping process for adversities. Even though there is similarity in viewing the assets of households, there is a difference in the SLA from the other approaches. The SLA has provided a deeper understanding and thus provides a framework to understand the adversities of vulnerable people rather than other approaches. This will be explained in more detail in section 3.2.

Secondly, the SLA is a prominent tool in understanding resilience in a post-disaster recovery situation with an indicator of a recovery of HBEs, because the SLA framework is designed to understand the process of coping and responding to harsh conditions and adversity. The resilience concept has a connection with vulnerabilities which is part of the SLA (Benson *et al.*, 2007), and then it is best captured by the SLA. According to McDowell (2002) and Brouwer (2006), the livelihood approach is highly suited to understanding the impact of disaster. On the same notion, Twigg in Brouwer (2006) stated that it is a useful tool for research studies on livelihood options for disaster risk reduction. In order to acquire a deeper understanding of the SLA, a deeper explanation of it, particularly in its process and mechanism and application, is given in the next part.

This chapter explores the SLA as the approach is able to understand and investigate how a livelihood works, including in post-disaster and industry, and also how other approaches have similarities with the SLA. This is followed by resilience in concept, as this concept is implicit in the SLA. Thirdly, the shortcomings of the SLA lead to a need to enrich the approach, particularly in terms of its capitals or assets, in human and social capital. These selected capitals are prominent in a post-earthquake situation, so a description of the concept of human and social capital is given, which aims to provide a deeper understanding of these capitals.

3.2. The Sustainable Livelihood Approach

The SLA of DfiD was originally designed to recognize the livelihood of low income people in rural areas, particularly in relation to coping with poverty (Scoones, 1998). However, it was then used widely in various settings, including its use in project design, programme design, project review and impact assessment, review of a programme, or even assessing sectors such as tourism and wildlife (Farrington *et al.*, 1999), post-disaster (Sanderson, 2000), or ancient traders (Turner, 2009).

The SLA puts people as the priority. Historically, according to Arce (2003), the SLA was formulated when the role of states seemed less than markets. At the same time, the economic growth model has led to side effects in ecological and social sustainability. Also, the Brundtland Agenda which was pioneered by the World Commission on Environment and Development in 1987, placed sustainable development at the forefront of international agendas (Arce, 2003). However, in response to the Brundtland Report, sustainability was not supposed to be a central theme above that of low income or poor people (Chambers, in (Arce, 2003). Thus, by design, the SLA focuses on people, and as it says puts *'people at the centre of development*' (DFID, 1999). By putting people as the priority, an adaptation which is done by the people in a household unit works through certain processes and mechanisms leading to Livelihood Outcomes. These processes and mechanisms are the next section, followed by the application of the SLA in various settings. At the end of the SLA discussion, the SLA has similarities with the conception of Poverty Adaptation at the Household level.

3.2.1. The Process and Mechanism of the Sustainable Livelihood Approach

The SLA explains a mechanism of coping and adapting to trends, shocks, or seasonality in the form of livelihood strategies indicated by transforming structures and processes based on assets (DFID, 1999). The Sustainable Livelihood Approach is a framework that helps in the understanding of the circumstances around people and their livelihood. This framework describes the main factors that affect people's livelihood, and the relationship between these (DFID, 1999). Also, this framework can be a…

> *' […] versatile tool for use in planning and management…offers a way of thinking about livelihoods that helps order complexity and make clear many factors that affect livelihood* (DFID, 1999, p. 2.1).

The SLA simplifies complexity through interaction between Human, Social, Physical, Financial and Natural factors or capitals to adapt to and cope with vulnerabilities through livelihood strategies.

The interaction between capitals forms the process of adapting or coping with adversities which involve government and private sectors in certain processes in the form of law, policies, cultures and institutions (Figure 3.1). According to Moser (2009), poverty is one of the

vulnerabilities contexts that need livelihood strategies to be solved and adapted to. In doing so, livelihood strategies are taken to cope with and recover from stresses and shocks and maintain or enhance the capability and assets in aiming at a better condition to adapt to adversity DFID (1999: 1.1).

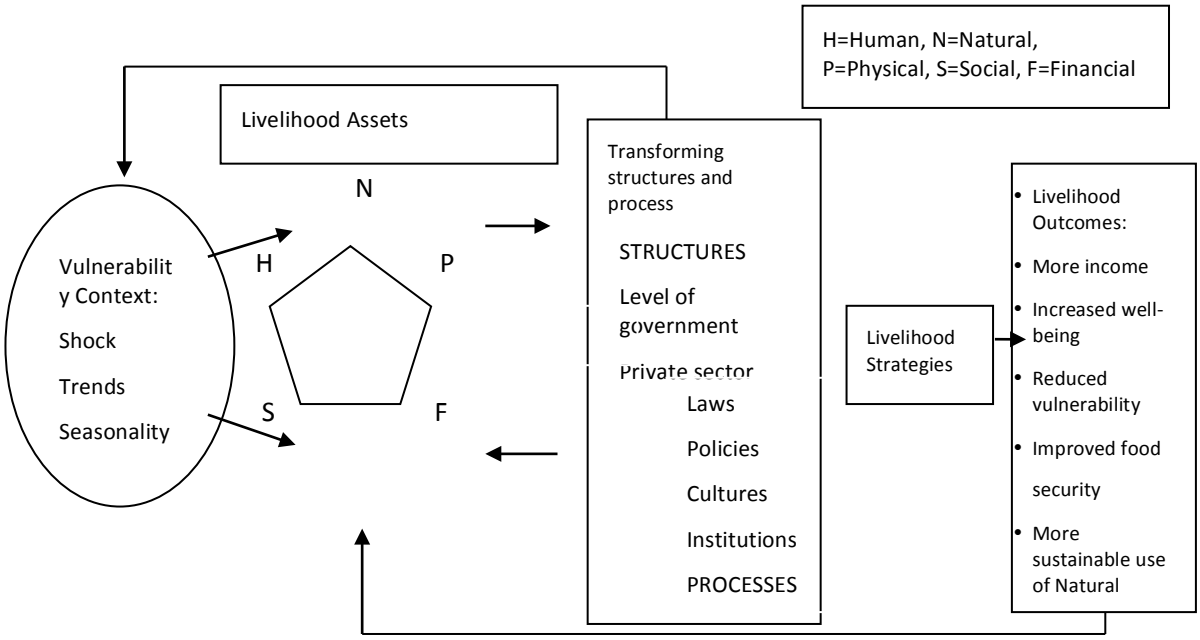

Figure 3. 1 Sustainable Livelihood Frameworks

Sources: DFID, 1999

The examples of vulnerabilities in shock, trends and seasonality can be both short and long term adversities, i.e. in long term economic crisis, poverty or even a global warming threat; a long term disaster such as drought or in the short term such as a disaster caused by nuclear meltdown or earthquake. By recognizing the importance of adaptation and coping to respond to the vulnerabilities, livelihood strategies need to be explored.

3.2.2. Livelihood Strategies for Households' Coping Processes

The concept of a household's strategy is adopted from the livelihood strategy. As a beginning, a household terminology needs to be explored. According to Rakodi and Lloyd-Jones (2002), a 'household' is '*a person or co-resident group of people who contribute to and/or benefit from a joint economy in either cash or domestic labour'* which also means a group of joint economy in either cash or domestic labour. The meaning of the *'livelihoods concept is a realistic recognition of the multiple activities in which households engage to ensure their survival and improve their well-being* (Ellis in Rakodi and Lloyd-Jones (2002:7)). Livelihood strategies contain multiple activities of households' strategies in order to ensure their survival and improve their well-being.

The terms 'adaptation' and 'coping' are the keys in the response to vulnerabilities. Adaptation can be defined as the action or process of adapting or being adapted or in terms of biology is the process of change by which an organism or species becomes better suited to its environment. Thus, adaptation is a process which takes place over a long time in a period of activities to adapt to the environment, such as global warming and poverty. Coping as a process seems more short term as it is a way to cope with the changes, for example adversities in the post-disaster situation. By definition 'coping', coming from 'cope', means dealing effectively with something difficult. This needs adaptation and coping strategies (Rakodi, 1995; Rakodi and Lloyd-Jones, 2002). Both adaptation and coping processes are part of the SLA, which are facilitated through livelihood strategies. The difference is in the type of response, depending on the time frames, whereas the vulnerabilities context which needs an immediate response, such as a natural disaster, uses coping strategies in livelihood strategies, and longer term changes need adaptation strategies. Thus, this study focuses on coping strategies, as the vulnerability context is formed in disaster.

Within the livelihood strategies to respond to stress and shocks, households devise coping strategies to protect their social reproduction and enable recovery (Rakodi and Lloyd-Jones, 2002), and these can be formed in various. It needs a household to:

> *'mobilize and opportunities and to combine these into a livelihood strategy which is a mix of labour market involvement: savings; borrowing and investments; productive and reproductive activities, income, labour and assets pooling; and social networking(Grown and Sebstad in Rakodi and Lloyd-Jones (2002: 7),…decisions about access to services such as education and housing'* (Rakodi and Lloyd-Jones (2002: 7)).

By having household strategies to adapt to and cope with vulnerabilities in various ways, the strategies are designed not only to cope with and recover from stress or risk, but also to maintain or even enhance capability and assets for a better condition. In the context of post-disaster, it is necessary in preparation for any future disaster, as this has been part of post-disaster management (section 2.2).

3.2.3. Application of the Sustainable Livelihood Approach

The SLA framework is used widely. The example of the application which is related to this research covers the project in post-disaster and industry which has used Sustainable Livelihood as a framework.

3.2.3.1. Post-disaster

Sanderson (2000: 96) proposes that post-disaster research can be approached by the sustainable livelihood concept. This is because '*sustainable livelihoods methodologies provide a valuable opportunity for combining disaster reduction and development interventions in one unifying approach'.*

Furthermore, the key element of the livelihoods approach is the people as a starting point on how people obtain 'assets', what they do with them, what gets in their way while obtaining assets, and who controls the resources on which assets are based (Sanderson, 2000). This confirms what the SLA was designed for in terms of *'putting people at the centre of development*' (DFID, 1999).

The most important and remarkable resonance of this methodology is the recognition of complexities between the livelihood system of disasters, particularly, first, from micro and macro issues. The evidence is depicted from a case of Venezuelan floods in Catuche, particularly in a neighbourhood of Caracas during the organization of the neighbourhood and the solidarity of the people following an early warning. Although in a forced way, it, in fact, saved hundreds of lives, with relatively very small numbers of people dying, compared to other similar neighbourhoods where hundreds died. Thus, such social assets at the neighbourhood level link assets at the household level. Second, livelihood thinking is able to highlight the layer and complexity of controls by institutions and their regulations, which affect the household's access to resources, and finally emphasizes the importance of household level assets, in all aspects (Sanderson, 2000).

Furthermore, the sustainable livelihood approach has been applied to disaster risk management in Aceh. According to Alexander *et al.* (2006), the approach comprehends the livelihood resource base with both the long and short term vulnerability context such as poverty and tsunami. The vulnerabilities contexts are responded to by the livelihood strategies, either resource-based or non-resource-based activities such as fishing, farming, forestry, or commerce, which then affects economic, social and environmental vulnerabilities, as depicted in Figure 3.2.

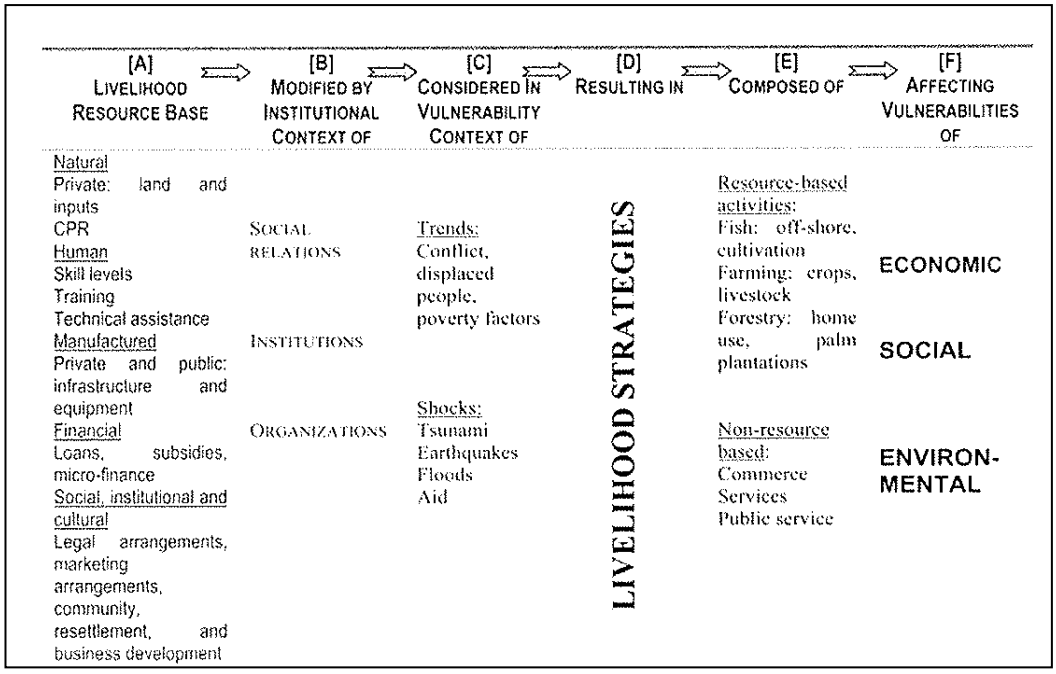

Figure 3. 2 Sustainable Livelihood Model in Aceh

Source: Alexander et al. in Shaw (2006: 39)

According to Alexander et al (2006), sustainable livelihoods ensure the long-term maintenance, survivability, and possible enhancement of stocks and flows of food and income for basic human needs, without undermining other such livelihoods or potential livelihoods for coming generations (Attfield, in Alexander 200: 39).

3.2.3.2. Trading in Developing Countries

Turner (2009) proposes that a study of Hanoi's Ancient Quarter Trader utilizes the livelihood approach to facilitate '*an improved understanding of individuals and household income-generating approach in developing countries'*. The study shows the fundamental circumstances, namely the institutional, economic, social and political context which has affected the operation of this economic activity. The findings of the study shows that Trader Livelihoods today can be categorized into four: only a few are left in the Ancient Quarter who started business generations ago, since the 13th century: the traders who began business during French colonialism, the traders who utilized their skills acquired within the socialist period prior to 1986 by establishing small enterprises in neighbourhood area, and lastly newcomers who started their business post-1986, since the US embargo was removed in 1994, and there had been an increase in international tourist numbers since the 1990s (Turner, 2009; Adger, 2000).

The study utilized in depth interviews, combined with a longitudinal research to trace a historical background in finding a resilient livelihood among Hanoi's traders. A portrayal of resilient traders responding to shocks and stress over centuries, and also a long-term description and the historical dimensions of such livelihood strategies, facilitate all to understand how certain livelihood strategies have '*developed, transformed, flexed and diversified to mould to specific economic and political climates over generations'* (Turner, 2009).

From the examples, the SLA strengthens the understanding of the problem due to the disasters in Venezuela and Aceh, and also the problem of the sustainability of the industry activities of the Vietnamese. Thus, livelihood strategies to cope with the shock of a post-disaster condition, and trends or changes surrounding business activities, also have been identified by the framework of the SLA. Thus, it becomes a versatile and useful tool in relation to understanding the livelihood, centred on people. The SLA indeed is not only related to the theme of poverty or rural areas (Farrington *et al.*, 1999), but also covers the context of various vulnerabilities.

When the SLA becomes a multipurpose and strong tool in relation to understanding the factors affecting livelihood, it seems that the unit of analysis is an individual or even a household. Thus, from the two cases above, it is clear that the SLA has become a prominent tool in understanding the continuation of economic activity as well as the effect of disaster on livelihood.

3.2.4. Assets at the Household Level: Some Approaches Which Have Similarities with the SLA

By considering that the SLA views the household as the unit of analysis, it is necessary to compare the SLA with other approaches. These indicate that poverty should be viewed from the household level, as suggested by Friedmann (2011), and Douglass and Zoghlin (in Douglass and Friedmann (1998).

It has been argued that poverty should be recognized and approached by the household and community, not only by the government through social transformation (Friedmann, 2011). According to Healey in Friedmann (2011), Friedmann is likely to stand for humans and society, not only for governments or states, in planning orientation. In addition, Friedmann argues that in a household unit, the assets can be divided into several elements, namely informal networks, relevant information, time, tools of production, social organization, knowledge and skills, space, and financial resources. Comparing the Sustainable Livelihood Approach of DFID, it seems that it matches in several ways, as can be seen in Figure 3.3.

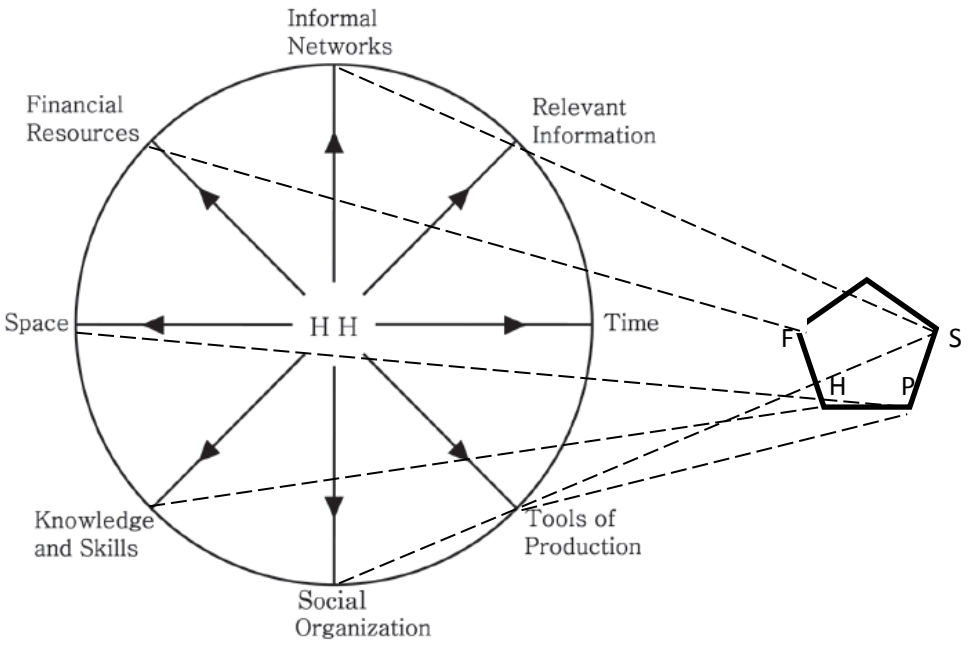

Figure 3. 3 Comparison of the Household Asset Frameworks of Friedman and Sustainable Livelihood Assets

Source: Adaptation of Friedmann (2011: 68) and DFID (1999)

To respond to poverty in households, several assets should be given to the household unit in order to improve living conditions. With the exception of the natural assets, all of the other assets or capital of the SLA covered in Friedmann's framework, such as a sense of financial capital, can be found in financial resources; social capital in social networks and social

organization; physical capital in instruments of works and livelihood and defensible life space; human capital in knowledge and skills.

Indeed, the household as a unit of analysis in addressing poverty alleviation is important. In doing so, we need to understand household allocation and resources, as Douglass and Zoghlin argue in Douglass and Friedmann (1998).

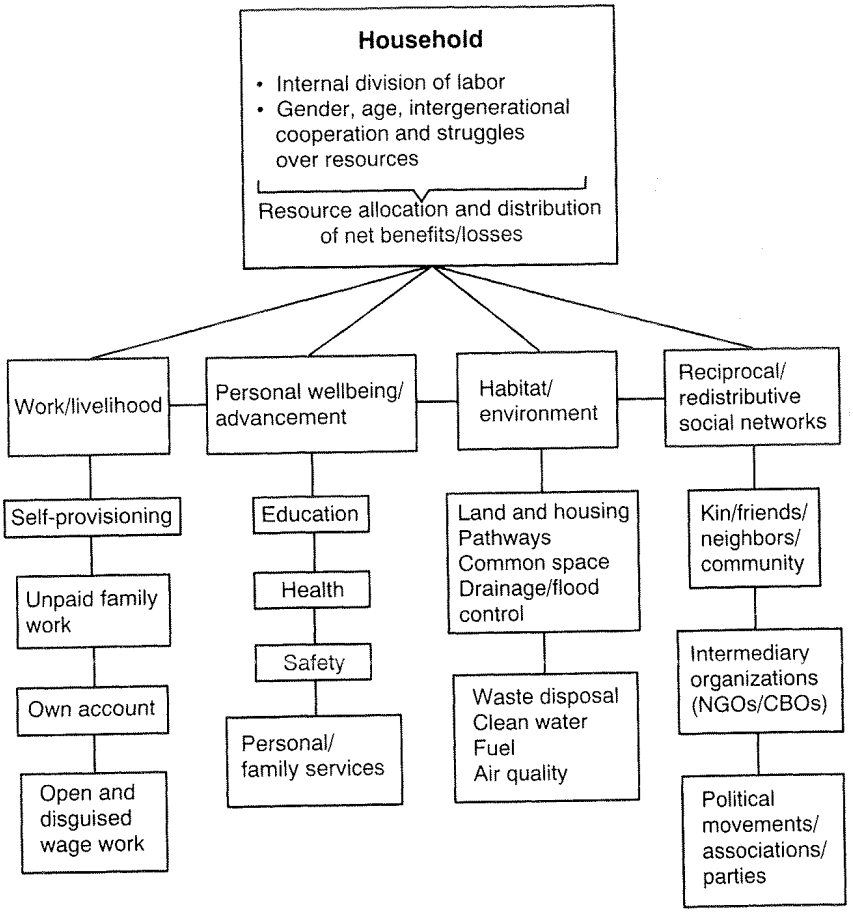

Figure 3. 4 Household Allocation and Resources
Source: Douglass and Zoghlin, in Douglass and Friedmann (1998)

It seems that capital or resource allocation and the distribution of net benefits or losses is similar to the assets of the SLA. Human capital in point of view is similar to personal wellbeing in education, health, and safety and personal/family services, while physical capital is similar to habitat, such as in land and housing, if still in the same group, but natural capital is represented in the environment, such as air quality and fuel. Lastly, social capital seems to be represented by reciprocal social networks, such as neighbours, NGOS, and CBOs, as well as political parties. Financial capital is implied by work or livelihood and consists of self-

provisioning, unpaid family work, work on one's own account, and open and disguised wage work. Therefore, this approach seems to echo the SLA, particularly in assets (figure 3.4).

These approaches, created by Douglass and Friedmann (1998) and Friedmann (2011), who are both planners, echo the importance of the household as a unit in understanding poverty. Also, the approach recognizes that the assets are important to understand households. Therefore, it is worth comparing them with the SLA.

3.2.5.Strengths and Challenges of the SLA

Thus, the SLA is the most appropriate tool in understanding how livelihood is included and how households can cope with adversity, which in this study is related to the post-earthquake situation. The SLA seems to have a complementary part, as it not only explains about the assets or capitals of livelihood, but also how they interact with each other through the process, structure and livelihood strategies used to cope, or not, with adversity (figure 3.1)

One criticism of the SLA concerns its application (Arce, 2003). According to Arce (2003), a case of coca leaf production with another agriculture exchange scheme in Bolivia seemed show that the SLA did not meet the design to treat people as the centre, by neglecting and ignoring people who were involved in the coca farming exchange in such an actor-oriented analysis. From the community development perspective, a value contestation between local people and an international agency became problematic, as it neglected local belief and pride. In conclusion, although this Bolivian case seemingly depicts a failure of the SLA as an approach in the treatment of people as a centre, it is not a justification of the weakness of the SLA in understanding livelihood adaptation or the coping process towards adversity, as this approach views assets and the relationship to change or response to any adversity.

In a deeper explanation of the strength of the SLA, the next part explores the connection between resilience and vulnerability.

3.3. Resilience, the SLA and HBEs

3.3.1. The Concept of Resilience

The concept of resilience comprises multi-scales and disciplines, from ecology, psychology, and regional development, and has become a discussion of social resilience. According to Davoudi et al. (2012), resilience in concept has developed from the Latin root 'resilire', or 'resilio' meaning to spring back, or jump back (Klein et al., 2003) and originally resilience was used by physical scientists to describe 'the stability of materials and their resistance to external shocks' (Davoudi et al., 2012). Resilience is the capacity to cope with unanticipated dangers after they have become manifest, by learning to bounce back. The concept of resilience entered into the debate decades ago. Current thinking on resilience is a combination of theoretical and

practical constructs 'that have seen the refining and reshaping of the disaster paradigm over past three decades' (Manyena, 2006b: 433).

Starting from the 1960s, the concept was then developed in 1973 to differentiate between engineering and ecological resilience, as follows:

> *'**Engineering resilience** is the ability of a system to return to an equilibrium or steady-state after a disturbance (Holling, 1973, 1986), which could be either a natural disaster, such as flooding or earthquakes, or a social upheaval, such as banking crises, wars or revolutions. In this perspective, the resistance to disturbance and the speed by which **the system returns to equilibrium is the measure of resilience. The faster the system bounces back, the more resilient it is**. The emphasis is on return time, "efficiency, constancy and predictability", all of which are sought-after qualities for a "fail-safe" engineering design* (Holling, 1996: 31) in Davoudi et al. (2012) (bold added*).*
>
> *"**Ecological resilience** …the magnitude of the disturbance that can be absorbed before the system changes its structure" (Holling, 1996, p. 33, emphasis added). Here, **resilience is defined not just according to how long** it takes for **the system to bounce back after a shock,** but also **how much disturbance** it can **take and remain within critical thresholds.** Ecological resilience focuses on "**the ability to persist and the ability to adapt"*** (Adger, 2003: 1) in Davoudi et al. (2012) (bold added).

To recover by putting back the system works as before is important, although engineering puts more emphasis on the importance of speed in the equilibrium point of return, while ecology focuses on speed and the ability to persist and adapt.

Then, the equilibrium view of resilience not only covers the engineering and ecological perspectives, but moves towards the social sciences such as psychology, disaster studies, economic geography and environmental planning (Davoudi *et al.*, 2012).

From the planning perspective, Davoudi (2012) argues that resilience in concept has been developed from natural science. However, related to the planning context which is part of social science, there have been some efforts to translate the concept of resilience into social science. This is problematic as it tends to reduce human willingness and actions because it seems deterministic, as a consequence of science characteristics. Another problem based on the planning perspective is that the government withdraws and resilience is more about community reliance, with the boundary of resilience of what to what, and lastly 'translating resilience from ecology to society relates to power and politics and the conflict over questions, such as what is the desired outcome, and resilience for whom?' (Davoudi, 2012). Indeed, it is not an easy task to translate natural science into social science as their ontology or how they understand reality are different. Therefore, resilience in concept should be centred on the context of the object and circumstances of 'resilience', which is what this study does.

The next part is designed to explore more in the definition of resilience from various contexts and perspectives, and then a discussion on the similarities and differences is depicted. Thus, resilience in concept needs to be developed properly to answer the research question of this research. In more detail, some definitions of resilience are given in Table 3.1:

Table 3. 1 Definitions of Resilience

	Author	Definition
Ecology	Holling et al., 1995	It is the buffer **capacity or the ability of a system to absorb perturbation**, or the magnitude of disturbance that can be absorbed before a system changes its structure by changing the variables
Ecology	Cardona, 2003	The **capacity** of the damaged ecosystem or community to absorb negative impacts and recover
Ecosystem	Resilience Alliance, 2005	Ecosystem resilience is **the capacity** of an ecosystem to tolerate disturbance without collapsing into a qualitatively different state that is controlled by a different set of processes. A resilient ecosystem can withstand shocks and rebuild itself when necessary. Resilience in social systems has the added capacity of humans to anticipate and plan for the future
Environmental resilience	www.resialliance.org	Resilience as socio-ecology terminology, particularly as applied to ecosystems, or to integrated systems of people and the natural environment, has three characteristics (Carpenter et al., 2001): •The amount of change the system can undergo and still retain **the same controls on function and structure** •The degree to which the system is capable of self-organization •The **ability to build and increase the capacity** for learning and adaptation
Psychology	Mallak, 1998	Resilience is the **ability of an individual or organization** to expeditiously design and implement positive adaptive behaviours matched to the immediate situation, while enduring minimal stress
Psychology	Paton, Smith and Violanti, 2000	Resilience describes an active process of self-righting. Learned resourcefulness and growth –**the ability to function** psychologically at a level far greater than expected given the individual's capabilities and previous experiences
Psychology	Pelling, 2003	The ability of an actor **to cope with or adapt** to hazard stress
Psychology	(in Davoudi, 2012)	In psychology, where resilience thinking has made major inroads, the equilibrium model of resilience to trauma is defined as "**the ability** of adults . . . who are exposed to an isolated and potentially highly disruptive event . . . to maintain relatively stable, healthy levels of psychological and physical functioning" (Bonanno, 2004, p. 20)'
Psychology	Luthar in Obrist et al (2010),	In child development psychology definitions, resilience can be seen as 'a dynamic process encompassing positive adaptation within the context of significant adversity'. In this discipline, resilience research aims to understand 'the process of positive **adaptation or good outcomes in response to adversity'**
Community	Miletti, 1999	Local resilience with regard to disasters means that a **locale is able to withstand** an extreme natural event without suffering devastating losses, damage, diminished productivity, or quality of life without a large amount of assistance from outside the community
Social Policy	Wildavsky, 1991	Resilience is the **capacity to cope** with unanticipated dangers after they have become manifest, learning to bounce back
Post-disaster	Comfort, 1999	The **capacity to adapt** existing resources and skills to new systems and operating conditions

	Author	Definition
Post-Disaster	Kendra and Wachtendorf, 2003	The **ability to respond** to singular or unique events
Post-Disaster	UNISDR,2005	The **capacity of a system**, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase this capacity for learning from past disasters for better future protection and to improve risk reduction measures
Disaster studies	(in Davoudi, 2012)	In disaster studies, urban resilience is often defined as **"the capacity of a city to rebound from destruction**" (Vale & Campanella, 2005), with the focus often being on whether the city has recovered, in quantitative terms, its economy, population or built form
Regional Resilience	(Pike et al., 2010)	**The adaptation ability to react** to a changing world …from a diverse array of external shocks and transitions, including financial crises, dangerous climate change, terror campaigns and extreme weather events
Economic geographers	(in Davoudi, 2012)	Economic geographers often draw on these interpretations of resilience to explain the trajectory of regional economic change as "**a process of punctuated equilibrium**" in which outmoded institutional structures are seen as creating "path dependent lock-in" and preventing economic resilience (for a critique of this approach, see Simmie & Martin, 2010)
Evolutionary Planning	(Davoudi, 2012)	Resilience is identical with '**Bounce-Back-Ability'**. An Evolutionary Resilience is one condition when 'resilience is not conceived of a return to normality, but rather as the **ability** of socio-ecological systems **to change, adapt, and crucially, transform in response to** stresses and strains' (Davoudi, 2012; Carpenter et al., 2005)
	Horne and Orr, 1998	Resilience is a fundamental **quality** of individuals, groups and organizations, and systems as a whole, **to respond** productively to significant change that disrupts the expected pattern of an event without engaging in an extended period of regressive behaviour.
	Glavovic	'Resilience is the **capacity to absorb sudden change – the ability to deal with surprises** or **cope** with disturbances (Adger 2000; Gunderson and Holling 2002)
	(Obrist et al 2010).	'**The ability, capability or capacity** of individuals, social groups and even social-ecological systems to live with disturbances, adversities or disasters and according to Adger is 'the ability to persist and ability to adapt'
	Glavovic et al. (2003)	Resilience can be seen in the context of livelihood system as 'waves of adversity' because the disturbances are **responded by the capitals or assets to 'stabilize' the system** from this disturbance, that are shocks, trends or seasonal shifts

Source: Adapted from (Glavovic *et al.*, 2003; Manyena, 2006a; Obrist *et al.*, 2010; Pike *et al.*, 2010 ; (UNISDR), 2012; Davoudi, 2012) and other sources (Emphasis added)

The concept of resilience has been covered by multiple disciplines and has both similarities and differences. The common facts of all definitions are the ability or capacity to react, respond, recover, deal with, cope, and adapt to adversity (table 3.1).

However, the differences are not only about the scale of the affected unit of resilience, which ranges from the individual to the household, community, ethnic group and even global level, called multilayers of resilience (Glavovic *et al.*, 2003), but also, as Davoudi (2012) has questioned, about the resilience of what to what, and the equilibrium point and time frame of resilience. On the same notion, Obrist *et al.* (2010) also suggest that the concept of resilience should be clear about the type of threat, or which adversity or vulnerabilities need to be

responded to. The question of the resilience to what has seemingly been answered by the multilayers of resilience of Glavovic *et al.* (2003), which consists of the individual, household, and community and an even wider scale, thus leading to the idea that the 'resilience to what?' leads to another answer, as it indicates the object which needs to adapt or cope in the context of the type of vulnerability, which will be explained in the next part.

3.3.2. Vulnerability vs. Resilience

In order to answer the question about resilience to what type of adversity or vulnerability, then this part describes the link between vulnerability and resilience. Vulnerabilities are part of the SLA (figure 3.1). By definition, vulnerability is:

> *'….the potential to suffer harm or loss, related to the capacity to anticipate a hazard, cope with it, resist it and recover from its impact* (Benson et al., 2007).

On the same notion as the sustainable livelihood concept above, vulnerability is defined as *"...insecurity and sensitivity in the wellbeing of individuals, households and communities in the face of changing environment, and implicit in this, their responsiveness and resilience, to risks that they face during negative changes.."* (Moser, 2009: 34).

In more detail, it has been understood that vulnerabilities can be in the long or short term. The vulnerability context is discussed in detail as follows:

- **Shocks** are perceived as the kind of events that can destroy assets directly, such as natural or human made disasters like floods, earthquakes, tsunami, storms, civil conflict, international economic shocks, and even rapid changes in exchange rates and terms of trade.
- **Trends** are perceived as being more predictable. They have a particularly important influence on rates of return (economic or otherwise) to choose livelihood strategies.
- **Seasonal shifts** are also vulnerabilities that directly affect particularly low income people, such as in changes to prices, employment opportunities and food availability (DFID, 1999, Section 2).

There is a contemporary debate on the link of resilience and vulnerability. Some researchers argue that resilience can be seen as the opposite or positive equivalent of the incapacity component of vulnerability. On the other hand, Obrist et al. (2010:23) argue that resilience goes beyond the capacity component of vulnerability. In his view, social resilience is 'a combining of vulnerability and resilience as equivalent concepts, lead[ing] to a more comprehensive understanding of the underlying social phenomena'. However, the concept of resilience as the antithesis of vulnerabilities is the concept of Benson *et al.* (2007). Both resilience and vulnerabilities have adaptation and coping strategies as keywords (see figure 3.1 of the SLA frameworks and table 3.1 Definitions of Resilience). The study of vulnerability can

be stated as the investigation of the 'coping capacity' and 'survival strategies', and this leads to the same investigation of resilience found in this study.

3.3.3. Five types of Resilience: based on assets of the SLA

As the antithesis of vulnerability, resilience has been framed and treated the same as vulnerability, which then is accommodated by the SLA. Based on the DfiD SLA approach, Obrist *et al.* (2010: 287) state that five livelihood assets contribute in building the resilience in five capitals: **human capital**, specifically one that is related to ability to work, health and knowledge; **social capital**, which covers networks, groups and trust; **natural capital**, specifically land, water and wildlife; **physical capital**, such as transport, shelter and energy in particular; and **financial capital**, for example in savings and credits.

With the interrelationship between these capitals, an adaptation and coping process which is led by livelihood strategies has resulted in both better off or worse conditions. The connections between the capitals depend on the existing capitals contributing to the adaptation and coping process. It can be the case that when all capitals work together in the coping process, when there are other case of adversities in other places, not all capitals are involved (Marsoyo, 2012), as this will depend on the place and circumstances of the adaptation and coping process.

3.3.4. Resilience of HBEs

The keywords of resilience are adaptation and coping ability, while resilience of what means the subject who needs to respond to the vulnerabilities, which can be formed based on a unit of analysis on the individual, household, community, or wider scales. Also, resilience to whom means the type of vulnerabilities which need to be responded to, for example natural disaster or global warming (Glavovic *et al.*, 2003).

Recognizing the research question of how adaptation strategies based on human and social capital affect the speed of recovery as a sign of the resilience of HBEs, the definition of resilience for this study of being affected by a disaster, and in particular an earthquake, is the UNISDR definition in:

> *The **capacity of a system, community** or **society** potentially exposed to hazards **to adapt**, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the **social system is capable of organizing itself to increase this capacity** for learning from past disasters for better future protection and to improve risk reduction measures.*

This study focuses on HBE households as the subject of resilience, concentrating on the fast recovery of ceramic HBEs back to normality and maintenance of an acceptable level of

function and structure in production or selling activity, or both. Furthermore, this study has a specific context of vulnerability, namely that caused by an earthquake.

However, even though the time frame to return to normality is debatable (section 2.2.3), with the resilience as the rate of recovery with an indication of fast recovery in particular, this study has sought a definition. **The resilience of HBEs is the capacity and capability of HBE households to cope with the adversity or vulnerability, particularly in the post-earthquake situation.** It means that HBE households who are able to *restart their activity or operation of the HBE,* to the point as before or even beyond, have a better future of protection for HBE households than those who do not.

The reasons for this are, firstly, in the terms of HBEs and post-disaster, that it confirms Engineering Resilience as it focuses on recovery. The home as a shelter and for income generating activities needs to be recovered quickly, as it is not only for shelter but also for income generating. Secondly, the term HBE is complex, as it means not only 'enterprises' or economic activities, but also 'home', which means the house is more than a physical entity, but instead means that there is an emotional bonding between the occupants and the house (Dovey, 1985).

3.4. Social-Capitals towards the Adaptation of the SLA

As part of the SLA, capital or assets are important resources in the adaptation process. According to Lin (2004), capitalism was pioneered by Karl Marx. Marx argues that profit making in the marketplace is controlled by capitalists or people who have capital(s) through economic activities. Capital is *investment of resources with expected returns in the marketplace* (Lin, 2004).

Rather than improving the SLA as an analytical framework, this study argues that an adaptation or enrichment of the existing part of the SLA is necessary, particularly in relation to understanding the post-disaster condition. Indeed, all the capitals are analysed to obtain which are the dominant capitals to contribute to recovery; however, it is argued that not all capitals affect the presence of the resilience of HBEs. Evidence of both local people's skill and the local culture of mutual help in '*gotong royong*' represent the existence of human and social capital in the area, as described in chapter 1, which is then analysed and explained in chapter 6. In doing so, it is necessary to enrich the concept of the SLA to deal with the shortcomings of this approach related to human and social capitals, by exploring and utilizing various disciplines to gain a better understanding of the presence of the recovery of HBEs in the post-disaster situation.

The upcoming parts explore socio-capitals, human and social capital, with an enrichment of the human capacity and capability as a concept, particularly in terms of the local character in anthropology, the study of creativity and flexibility, and the study of sociology, particularly with social capital.

3.4.1. Human Capital

This part explores the underpinning theory of how human capital affects the emerging resilience of HBEs, focusing on how human beings are the operators of this kind of economic activity in HBEs.

The concept of human capital stands on the belief that humans contribute to profit making in the marketplace. According to Lin (2004), human capital was defined by Adam Smith in 1937 as the part of capital dealing with the individual labourer who acquires useful abilities within the population. Before this, economic literature has discussed human capital, such as Von Thunen in 1875 or Fischer in 1906. However, a contemporary understanding of human capital was introduced by Johnson, Schultz and Becker in the 1960s. Johnson, in 1960, argued that labourers are experienced and thus became capitalist from the acquisition of knowledge and skills which have economic value, so it is not from the accumulation of stock, as with a landlord or capitalist. In doing so, labourers with new knowledge and skills can demand payment beyond the exchange value for their labour (Lin, 2004).

Education, knowledge and skills are keywords for human capital. As a means of production, terms of knowledge and skill, Shultz, in his presidential speech at the 1960 meeting of the American Economic Association (1961), on "Investment in Human Capital" stated that:

the failure to treat human resources explicitly as a form of capital, as a produced means of production, [and] as the product of investment,[which] has fostered the retention of the classical notion of labour as [only] a capacity to do manual work requiring little **knowledge** and **skill**, a capacity with which, according to this notion, [all] labourers are endowed about equally (Schultz in Lin, 2004) (bold added).

On the same notion, human capital concentrates '*on the agency of human beings –through skill and knowledge as well as effort –in augmenting production possibilities*' (Sen, 1997:2). In addition, the OECD defines human capital as:

> *The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (OECD, 2001: 18).*

Furthermore, education is also closely related to human capital, as stated: '*human capital most forcefully in terms of education… '* (Lin, 2004: 9). Gary Becker, in his winning speech for the Nobel Prize in Economics in 1992, stated that in the 1950s and 1960s, the human capital concept was controversial as it was viewed as narrowed down and unfeeling and it seemed to view that humans were treated as machines by the schooling process, and not by cultural experience. However, in 1989, Gary Becker stated that, '*all in all I believe the case is overwhelming that investments in human capital are one of the most effective ways to raise the poor to decent levels of income and health'* (Stanfield, 2009). Therefore, it is clear that investment of human capitals is believed to contribute to lifting people out of poverty.

Human capital is unlike physical capital, as the value added of physical capital seems to be separated from the labourer (Lin, 2004). In human capital, however, the value added is attached to a labourer when the labourer acquires knowledge, skills, and other assets useful to the employer or firm in the production and exchange processes. The added value embedded in the labourers is the important dissimilarity between physical and human capital.

Furthermore, investment in human capital for labourers is good both for the capitalist and for the labourers themselves (Lin, 2004). This happens when the labourer has a better level of education or skills which then become a new investment for a labourer to acquire a better bargaining position and thus better wages, or possibly to become a new capitalist when he/she has enough capitals. Also, skills are part of human capital, as they also contribute when people acquire economic benefit. For example, an experienced carpenter tends to have a better income than his assistant who has just begun work, who apparently has limited experience and thus gets a lower wage.

3.4.2. Social Capital

From the human capital perspective, we move to social capital, which is networking between people to gain economic benefit. As human capital seems look at people as a single unit, social capital focuses on the interconnections between human beings. By design, connectedness between human and social capital has been recognized, as stated:

> *Clearly there is a close relationship between the way that knowledge is generated and transmitted and social capital (see 2.3.2). High levels of social capital can therefore substantially add to human capital (DFID, 1999, p. 8 part 2.3.1.).*

This section provides the theoretical approach to the contribution of social capital in the presence of the resilience of HBEs. Social capital is the relationship between people based on trust, network and reciprocity (Coleman, 1988; Putnam, 2000; Häuberer, 2011).

These are developed through networks and connectedness, either vertical (patron/client) or horizontal (between individuals with shared interests). These increase people's trust and ability to work together and expand their access to wider institutions, such as political or civic bodies, membership of more formalised groups, which often entails adherence to mutually-agreed or commonly accepted rules, norms and sanctions, and relationships of trust, reciprocity and exchanges, which facilitate co-operation by reduced transaction costs. These may provide the basis for informal safety nets amongst the poor (DFID, 1999: part 2.3.2 p.9).

According to Coleman in Lin (2004), social capital consists of the social structure and actions of individuals within the structure. Related to social action, Coleman 'delineates how actors exercise control over resources in which they have an interest and how they are also interested in events that are at least partially controlled by other actors', by exchange and transfer of resources, and this social relationship facilitates the actions of individual actors and forms the basis of social capital (Lin, 2004: 23).

Coleman argues that networks or relationships are related to structural positions and actions, in which any purposes in forming a relationship or connection with others is aimed to gain benefit, particularly wealth, power or reputation (Lin, 2004).

Further, Nan Lin (2004) provides a clearer definition in that social capital has been understood as a combination of the structural position in pyramidal hierarchy, and the type of tie or connectedness in bonding and bridging. Bridges are the ties between two individuals from different social circles (Lin, 2004: 67) or social or economic strata, while bonding is the connection between the individuals in the same circle or similar economic, cultural or social backgrounds or strata (Schuurman, 2003). On the same notion, Aldrich (2012) builds Lin's social capital into bonding, bridging, and linking social networks along with the norms and information transmitted through those connections (Chamlee-Wright, in Aldrich (2012)). Bonding and bridging is about the relationship between networking among people, while linking is about the relationship across networks, as it involves governments or NGOs (figure 3.5).

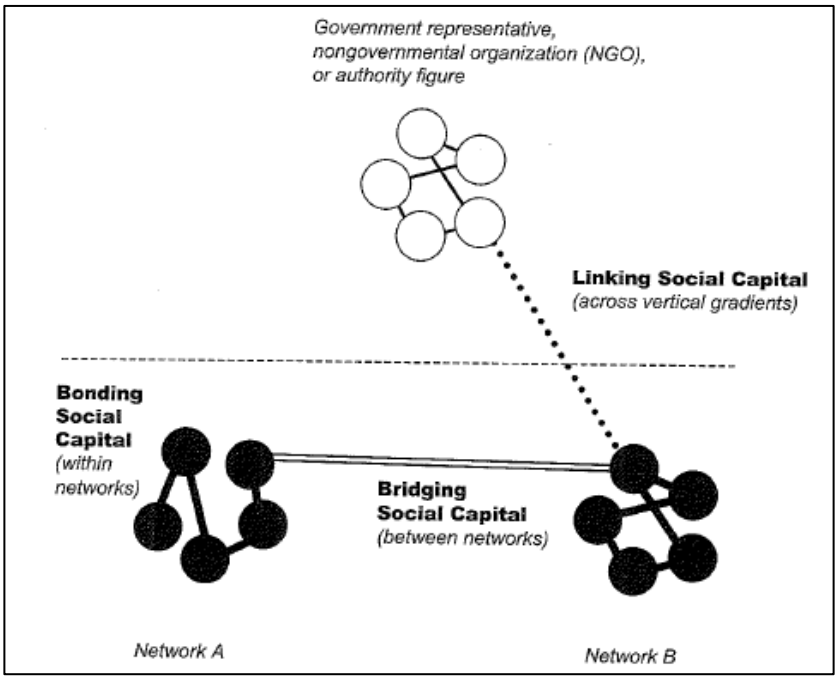

Figure 3. 5 Bonding, bridging and linking
Source: Aldrich (2012: 34)

According to Lin (2004), the purpose of action of social capital could be, for example, that an expressive action maintains the existing resources, or an instrumental action gains new resources to acquire wealth, power or reputation. Social capital has the dimension of upper reachability, heterogeneity, and the extent of embedded resources (figure 3.6.).

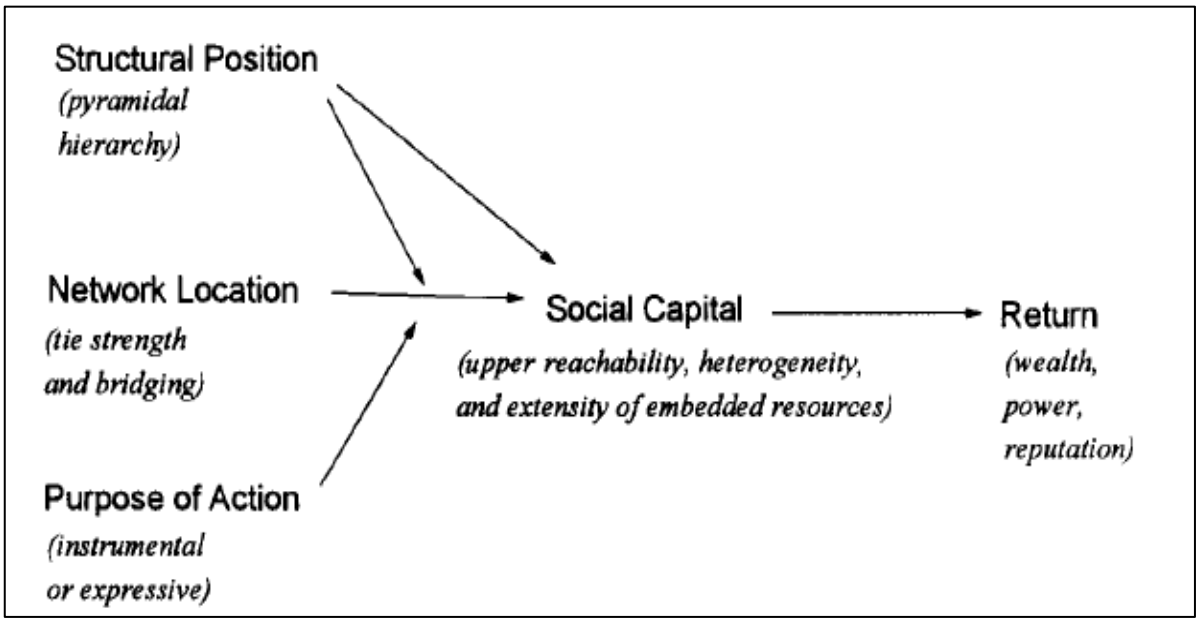

Figure 3. 6 Model of Social Capital Theory of Nan Lin
Source: Lin, 2004: 76

In sociology, structure can be represented in a diagram so as to view the different positions overtime. Lin's (2004) diagrams show the changes of structure position over a certain period of time. Thus, figure 3.7 shows the changes in the structure of households compared to others over time.

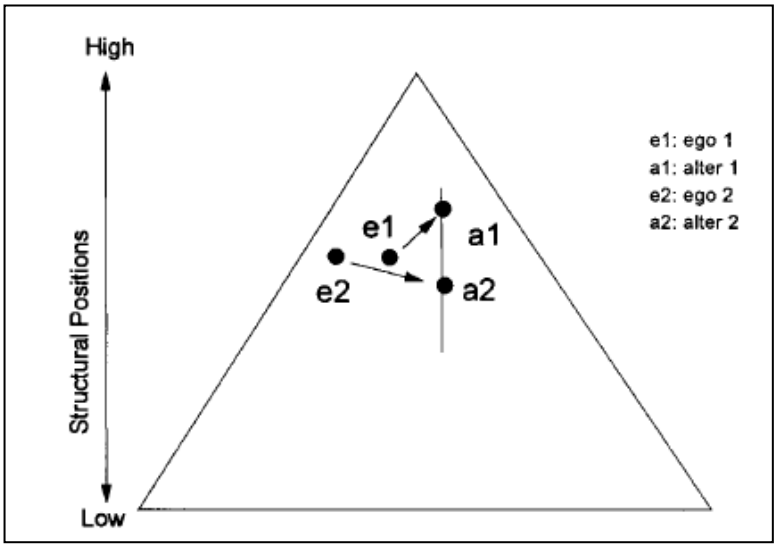

Figure 3. 7 Relative effect of social capital
Source: Lin, 2004: 61

Social capital is crucial in developing resilience in the post-disaster situation (Aldrich, 2012). A study of post-disaster reconstruction and resilience in four locations found that social capital is important in building resilience. Social capital is derived from social relationships and it is a powerful asset in relation to the establishment of resilience post-adversity. Social relationships can produce stronger individuals following the post-disaster impact in their life (Aldrich, 2012).

The importance of social capital is high since as (Portes, 2000) argues, social capital is a feature of communities and nations. Social capital…

> *…leads to positive outcomes, such as economic development and less crime, and its existence is inferred from the same outcomes. Cities that are well governed and moving ahead economically do so because they have high social capital; poorer cities lack in this virtue (Portes, 2000).*

According to Aldrich (2012), social capital in a post-disaster situation is a prominent factor in building resilience. Hyogoken in Aldrich (2012) argues that a delay in recovery is mostly caused by social infrastructure problems, rather than economic or disaster-related obstacles. The notion of the importance of social capital as an indicator is that 'By providing norms, information, and trust, denser social networks can implement a faster recovery' (Aldrich, 2012: 45). 'Thus, how social capital is applied in disaster recovery can be seen in the three mechanisms below, showing the role of social capital both in non-crisis or pre-disaster events and in post-disaster situations. are depicted in table 3.2.

Table 3. 2 Mechanism of social capital in non-crisis events and in disaster

Broad Mechanism	Post-disaster application
Strong social capital provides information, knowledge, and access to members of the network	Social resources serve as informal insurance and mutual assistance after a disaster
Strong ties create trust among network members	Strong capital helps by overcoming collective action problems that stymie recovery and rehabilitation
Social capital builds new norms about compliance and participation	Networks strengthen voice and decrease the probability of exit

Source: Aldrich (2012: 46)

According to Aldrich (2012) social capital in non-crisis or pre-disaster event provides information, knowledge and access to members of the network. This is important in a post-disaster situation, because such strong social capital provides informal insurance and mutual assistance, such as help clearing debris or even rebuilding houses, borrowing tools for rebuilding houses, or even borrowing land or property for emergency or temporary shelter. Secondly, strong ties basically build trust among the network members in a non-crisis

situation, leading to collective actions in the post-disaster situation. Lastly, social capital builds norms about participation and increase the probability of exiting from the crisis situation in the post-disaster context (table 3.1).

Furthermore, regarding post-disaster recovery and the involvement of social capital, community participation is prominent in post-disaster housing recovery (Davidson, 1996; Lizarralde *et al.*, 2009). Although community participation seems to have a weakness as it does not always work in medium or long term development recovery, it is this participation that is important in dealing with post-disaster recovery (Davidson *et al.*, 2007), and it is formed in several ways. This participation can be represented in mutual help, such as social ties which can serve as informal insurance, providing victims with information, financial help, and physical assistance (Aldrich, 2012).

3.5. The Adaptation to the SLA: Supplementing the Human Capital Concept

This part is the explanation of the adaptation of the SLA and thus the contribution of this study. It is argued that adaptation of the SLA approach is required. By design, the SLA has five capitals for livelihood in doing adaptation towards adversity.

The SLA has become a tool in the assessment based on five capitals, and therefore to understand the process of adaptation to respond to adversity, the outcome will vary as a better or worse off condition. This study indeed focuses on the assessment of capitals and livelihood strategies to respond to adversity, not giving priority to the structure of stakeholders involved in the process of adaptation. This leads to the argument that it is necessary to complement the existing capitals that have been used in this approach, with another factor.

It seems that there is uncertainty of the use of the terminology of 'capital', so it opens an opportunity to add a different meaning to 'capital' in certain parts when needed.

> *Although the term 'capital' is used, not all the assets are capital stocks in the strict economic sense of the term (in which capital is the product of investment which yields a flow of benefits over time). The five capitals are perhaps best thought of as livelihood building blocks; the term 'capital' is used because this is the* ***common designation*** *in the literature (DFID, 1999, part 2.3.1) (bold added).*

Indeed, human capital focuses on people's knowledge, so formal education is the first priority to measure human capital. '*Human capital represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives*' (DFID, 1999, part 2.3.1). Furthermore, the knowledge can also be indicated from other sources, as follows:

> *Formal education is certainly not the only source of knowledge-based human capital. It is equally important to understand existing local knowledge, how this is shared, added to and what purpose it serves. For example, some knowledge can be highly useful for production – think of knowledge about modern, intensive farming techniques – but be neutral or negative in terms of its effect upon the environment and environmental sustainability. Or some knowledge – again, think of knowledge for production, either agricultural or industrial – may be effectively useless unless it is coupled with other types of knowledge (knowledge about how to market goods, about appropriate quality standards, ….) (DFID, 1999, part 2.3.1).*

Therefore, it is clear that an approach which views humans as the actors who have been affected by the vulnerabilities context seems to need to be supplemented in terms of having an understanding related to people or actors, not merely from the theory of human capital as it relates to education and knowledge. However, it seemingly needs another approach to understand the humans, people or actors who have processes which respond and adapt to adversity.

Human capability in concept becomes a supplement to the concept of human capital of the SLA, in understanding humans or people or actors in the post-disaster situation. Due to the limitation of human capital in concept to understand how humans adapt, and thus this also affects how such livelihood adaptation strategies can work, so human capability provides a better understanding of humans, beyond human capital. Sometimes, the level of education and knowledge has not sufficiently emphasised the importance of a better understanding of people who can adapt to a difficult situation in the vulnerabilities context.

3.5.1. Human Capability beyond Human Capital

The human capital concept focuses on human ability in relation to the level of education, skills and knowledge as capitals. Thus, in relation to the DfiD's Sustainable Livelihood Approach, human capital is one of the resources used for adaptation and for coping with changes.

However, the difference between human capital and human capability, according to Amartya Sen (1997), is as follows:

> *The former concentrates on the agency of human beings –through skill and knowledge as well as effort –in augmenting production possibilities. The latter focuses on the ability of human beings to lead lives they have reason to value and to enhance the substantive choices they have. The two perspectives cannot but be related since both are concerned with the role of human beings, and in particular with the actual abilities that they achieve and acquire (Sen, 1997:1959).*

Therefore, it is clear that human capability not only focuses on production possibilities, but also on the ability to live based on beliefs and choices, and thus it goes beyond the production concept. Furthermore, Amartya Sen also mentioned that:

> *The use of the concept of "human capital," which concentrates only on one part of the picture (an important part, related to broadening the account of "resources"), is*

> *certainly an enriching move, but it needs supplementation. This is because human beings are not merely means of production (even though they excel in that capacity), but also the end of the exercise….We must go beyond the notion of human capital, after acknowledging its relevance and reach. The broadening that is needed is additional and cumulative, rather than being an alternative to the "human capital" perspective (Sen, 1997: 1960).*

The most important point is that Sen strongly argues that human capital needs to be supplemented because human beings are not the means of production but the end of the exercise. Furthermore, to understand the role of human capabilities, Sen (1997) argues that in the capability point of view, all of it relates to their direct relevance to the well-being and freedom of people; their indirect role through influencing economic production: and their indirect role through influencing social change. The relevance of the capability perspective incorporates each of these contributions, and the different contributions relate closely to each other.

According to Robeyns (2005), a capability of people, well known as the Capability Approach, 'focuses on what people are effectively able to and to be; that is on their capabilities'. Amartya Sen, an economist and philosopher, has pioneered the Capability Approach, which was then developed by a philosopher, Martha Nussbaum.

In relation to this study, the approach is not utilised as a whole process in terms of the functioning of goods and services (figure 3.8), but rather it is some of the ways of thinking in the capability approach which have been adopted to support the argument of human capital that must be expanded to the human capability concept. The (human) capability approach utilizes a multi-disciplinary perspective which seems more comprehensive and develops human capital, which mainly focuses on the education, skill and knowledge of an individual person to adapt and cope, as reflected in the DfID's SLA.

3.5.2. Human Characteristics and Human Capability

As human capability involves aiming at a certain achievement, meaning to achieve (in the bottom left part of figure 3.8.) goods and services that need to be managed, it is social context as well as personal history and psychology background which affect the choice of how people want to manage their assets to achieve something, including achievement in adapting to or coping with adversities (Robeyns, 2005). It is clear that such historical, cultural, psychological and anthropological perspectives on human characteristics in a certain area need to be explored to figure out the motives behind the choices of the coping strategies (figure 3.8).

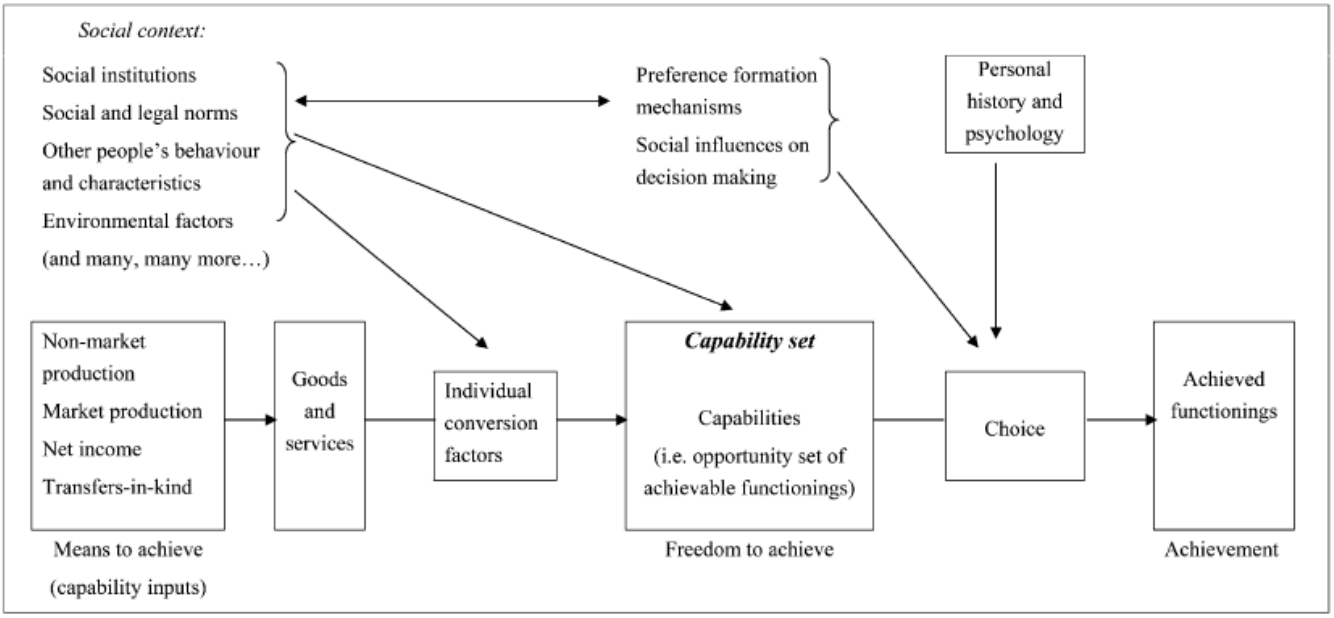

Figure 3. 8 A stylised non-dynamic representation of a person's capability set and her social and personal context

Source: Robeyns (2005: 98),note: dash line added

3.5.3. Human Character: Post-Disaster and Anthropology Research

According to Oliver-Smith (1996), since the 1990s anthropological researchers have broadly approached the topics of hazards and disasters. Thus, the general topics regarding the anthropological approach are divided into several parts, namely the behavioural and organizational response approach, the social change approach, and the political economic/environmental approach, which is close to the governance and institutions approach. It is interesting to recognize that the anthropological approach has not focused only on the behavioural at the individual level, but also on the community on an even wider scale. Furthermore, Oliver-Smith (1996) argues that in normal times, factors such as race, ethnicity, class, age and gender are key variables in the appearance of patterns of consensus and conflicts and also for differentiating impact. As ethnicity is one of the differentiating factors in response to disaster, consequently, the ethnicity of the Javanese people also serves to understand the typical value: how they perceived daily life phenomena, as well as how they perceive phenomena related to the disaster itself.

3.5.4. Human Creativity as part of Human Capability

Creativity is also part of human capability, due to creativity makes people who have it creates coping strategies in dealing with post-disaster impact, to become more adaptive and flexible relativity. According to Cohen and Ambrose (1999), creativity relates to human capability to

solve everyday problems. This part explains creativity, which consists of the definition of creativity, its characteristics and the creativity as a behaviour which make the people who have it capable to adapt and cope with adversity.

The definition of creativity is various, as it has been viewed that creativity is the ability to produce work that is both novel and appropriate (Sternberg and Lubart, 1999; Sternberg, 2006), both original and effective (Runco and Jaeger, 2012: 92), or merely original (Fryer 2012), and fluent and flexible (Tadmor et al., 2012). In addition, Feist (1998) argues that creative thought or behaviour must also be both novel-original and useful-adaptive, and thus to be classified as a creative person, s/he must be socially useful and adaptive. On the same notion, according to Kampylis and Valtanen (2010), the definition of creativity is wide, yet it gives similar key components of creativity that are novelty, appropriateness, and subjective.

According to Richards (2007: 25), creativity is not only about arts, or science, or special fields of endeavour. It is not only related to famous artists, bestselling novels, or ground breaking scientists. Everyday creativity is for everyone. Thus, throughout people's lives, it is fundamental to survival, for example to get enough food to eat, how we find a lost child or adapt to a new place and culture. Richards (1997, 2004) says we use our everyday creativity whenever we improvise solutions or cope with the contingencies of daily living. She exemplifies that creativity also involves solving problems, raising children, cooking food, landscaping the yard, or doing any of the complex tasks that fill our lives. As with other things, creativity has both positive and negative manifestations. Positive manifestations of everyday creativity are gardening, building a house, decorating, wrapping gifts, farming, and dancing, or everyday activities such as raising a child, fixing homes, and planning a fundraising event. The originality of everyday life manifested in concrete creative outcomes, behaviours or ideas needs to involve two criteria, originality and meaningfulness to others (Barren in (Richards, 2007: 25).

Creativity encompasses multiple disciplines as it gives advantages for humans in various ways, and also creativity has touched cross-cultural backgrounds and areas (Weiner, 2000; Tadmor et al., 2012). The benefits of creativity are relevant to solving problem in jobs or the daily life of an individual, but also, on the societal level, creativity leads to a new invention, a new social programme, new scientific findings (Sternberg and Lubart, 1999) or a new design of art (Weisberg, 2006).

Creative people have certain characteristics. In the terms of economic creativity or investment theory, the creative individual seems to be one who is willing and able to "buy low and sell high" (Sternberg, 2006). According to Richards (2007), a creative person is consciously aware of what is happening; more consciously aware in the moment, rather than leading a habit-bound routinized life, and is open to experience, as the ability to enjoy elements, originality, and appreciation.

From the psychology perspective, creativity has been used widely, particularly in its impact which is not only useful for the individual level but also for society. On a wider scale of the use of creativity, Florida (2002) argues that creative class has an impact on developing a creative city.

This study focuses on creativity as behaviour which is reflected through creative behaviour, creative thought or ability or strategy, as Guilford as a pioneer of creativity has stated:

> *In its narrow sense, creativity refers to the abilities that are most characteristic of creative people. Creative abilities determine whether the individual has the power to exhibit creative behaviour to a noteworthy degree* (Guilford in Runco and Jaeger (2012: 94).

According to Fryer (2012), various perspectives of creativity can be divided into several categories; however, creativity as behaviour is the most relevant understanding related to this study. Creativity as behaviour is mainly related to the development of human beings from childhood to adulthood, and creativity works in close relationship with the concept of novelty and usefulness (Cohen and Ambrose, 2009).

In relation to human behaviour, Oliver-Smith and Hoffman (1999) argue that in the disaster context, human response and behaviour is necessary to solve their problem in relation to their loss, which is not merely their home, but also their gathering place, or public infrastructure. How they deal with internal problems, such as searching for the meaning and explanation of the disaster, as well as an external response and behaviour to deal with neighbouring communities, aid givers or their government, is crucial in the recovery process (Hoffman and Oliver-Smith, 1999). Creativity as behaviour in the post-disaster context requires long term characteristics and habits. This leads to the creation of a more adaptive and flexible person in dealing with the disaster, so that they may return to their pre-disaster activities.

In terms of a long period of time of creativity, according Cohen (2011), creativity leads to flexible and adaptive people. Adaptation means that there are acts of adjustment to environmental conditions or the modification of an organism or its parts, to make it more fit for existence under the environmental conditions, so an adaptive person is one who has the ability to adjust to conditions or environments, or to change as needed to fit such conditions (Cohen, 2011: 9). Thus, in the post-disaster context, the people who can adapt can adjust to the loss of their home, gathering place, and infrastructure, and not only adjust but also change and recover from the loss, in order to accommodate conditions and activities as they were before the disaster.

Furthermore, the connection between creative, flexible and adaptive people is depicted through the level of creativity of Cohen and Ambrose (1999), which was updated by Cohen (2011). Mihalyi Csikszentmihalyi, in Cohen (2011), argues that Mature Creativity is creativity where there must be novel products or a performance of individuals who are masters in the field, as mentioned at the beginning of this part. However, Sherie Heller in Cohen (2011) also

described Mundane Creativity as having a sense of small 'c' creativity or creativity in the small, reflecting a concept of ' creativity that is new to the individual or perhaps to peers, but does not result in products or performance that are rare or of value to the world' (p. 9). Therefore, it relates to the ability to solve problems at work or in daily life. This needs an ability of people to recognise what their problem is about and thus how they can solve the problem (Sternberg, 2006). Creative thought or behaviour has been predominantly used for scientists and artists (Feist, 1998), but it is also the basis of mundane creativity.

Both real creativity and daily creativity create flexibility towards the post-disaster situation, as this is also affected by human response towards the post-disaster situation, as Hoffman and Oliver-Smith (1999) have argued.

3.5.5. Level of Creativity: Mundane or Ordinary and Mature or Real Creativity

A continuum of creativity reflects how humans can interact with the world, particularly in the human ability to affect the world and vice versa (Cohen and Ambrose, 1999; Cohen, 2011). Level 1-5 reflects Mundane Creativity or small c, to level 6-7 which reflects Mature Creativity, with a capital C, which is predominantly used for scientists and artists (Feist, 1998).

In more detail, mundane creativity reflects the ability of individuals to adapt with creativity, such as by producing or performing something novel at a level where the person can influence the world, not vice versa, or that the world would fit with the creative person. This mature creativity is at levels 6 and 7, and thus in relation to this paper involves the creation of a new design of art, including at this level (table 3.2). From this continuum, Mature Creativity also needs mundane creativity as its starting point.

3.6. Direction of the Study

This chapter, as the second part of Literature Review, has provided an analytical framework particularly related to the SLA (figure 3.9). This chapter explores the SLA as an analytical framework and also thus resilience as the result of the adaptation of a livelihood system can be understood. The reason for using the SLA as an analytical framework lies in the capacity to understand and explain how the households to cope with adversities. When the SLA has been applied by various agencies, it was claimed that it helps to bridge the gap between the macro policies included in the post-disaster responses, and the micro realities of a livelihood adaptation included at the households and neighbourhood level (Carney *et al.*, 1999; Satterthwaite and Tacoli, 2002). Therefore, as this study intends to understand how a household can cope with post-earthquake impacts, it can then accommodate by the SLA.

Table 3. 3 Continuum of Creativity

Continuum	Level	Indicators	Explanations
Mundane or Daily Creativity	1	Learning something new, Universal Novelty	In infants or children as they deal with novelty in the world In adults: attempt to master a new field or skill
	2	Making connection that are rare compared to peer	Children: view glass fragment to a city scale, which is not common for example for a 4 year old girl Adults: the use of images and metaphors to understand complex material
	3	Mastering a Field	Become athletes and musicians, fixing old cars, computing, French cooking, craftspersons: combination of talents, instructions, materials, and family support
	4	Developing heuristically through instruction in a wide range of strategies	Use information available to develop strategies become master Develop alternatives using fantasy, and imagery; Construct remote association; Use critical thinking; make transformations; systematically use problem solving, and problem finding processes in a variety of areas Develop stronger awareness of the beauty, harmony, and patterns around them, enrich their experiences of the world Meta-cognitive awareness is important
To	5	Producing Information	Individuals discover and investigate their own real problems related to the areas of interest and development knowledge New information is produced The individuals pursue 'burning questions' with a purpose, zeal, committed while building up a considerable knowledge base Individuals engaged in purpose and emotional driven all-consuming focus in the problem Problem solving heuristically and individuals begin to develop their own way of working The product is of value both to the self and others, but individual's view begins to be imposed on the world Adaptation starts to shift from making self-fit the world to change the world a little by one's ideas and effort
Mature or Real Creativity	6	Creating by Extending a Field	Mature because it involves well developed, extensive, intricate knowledge systems which represent mastery of a field or fields Need 10 years/ most of efforts study and practice are required to reach such level Creativity involves the regular solving of problems not a one-time occurrence The creator constructs a partial point of view and adds new dimensions or valuable new information from a field, thereby extending that domain of endeavour The creator must have mastered the knowledge base in the field in order to be aware of its gaps, needs, problems and pressing issues This mastering him to create a solution for one or more of these gaps or needs
	7	Creating by Transforming a Field	Involves the revolution of a field of endeavour or creation of a new field

Source: Developed from Cohen and Ambrose (1999),Cohen (2011)

Rather than focusing on structure and process that affect to sustainability or resilience of HBEs, this research focuses on the assets or capital effects on the resilience of HBEs. Thus, the SLA as an analytical approach of this study is the main analytical tool by which to understand the dominant assets or capitals in chapter 6 and livelihood strategies in chapters 7 and 8.

Therefore, structure and process of SLA are not the main focus of this research, but are instead explored in the context chapter, particularly in the HBEs and recovery responses part in chapter 5.

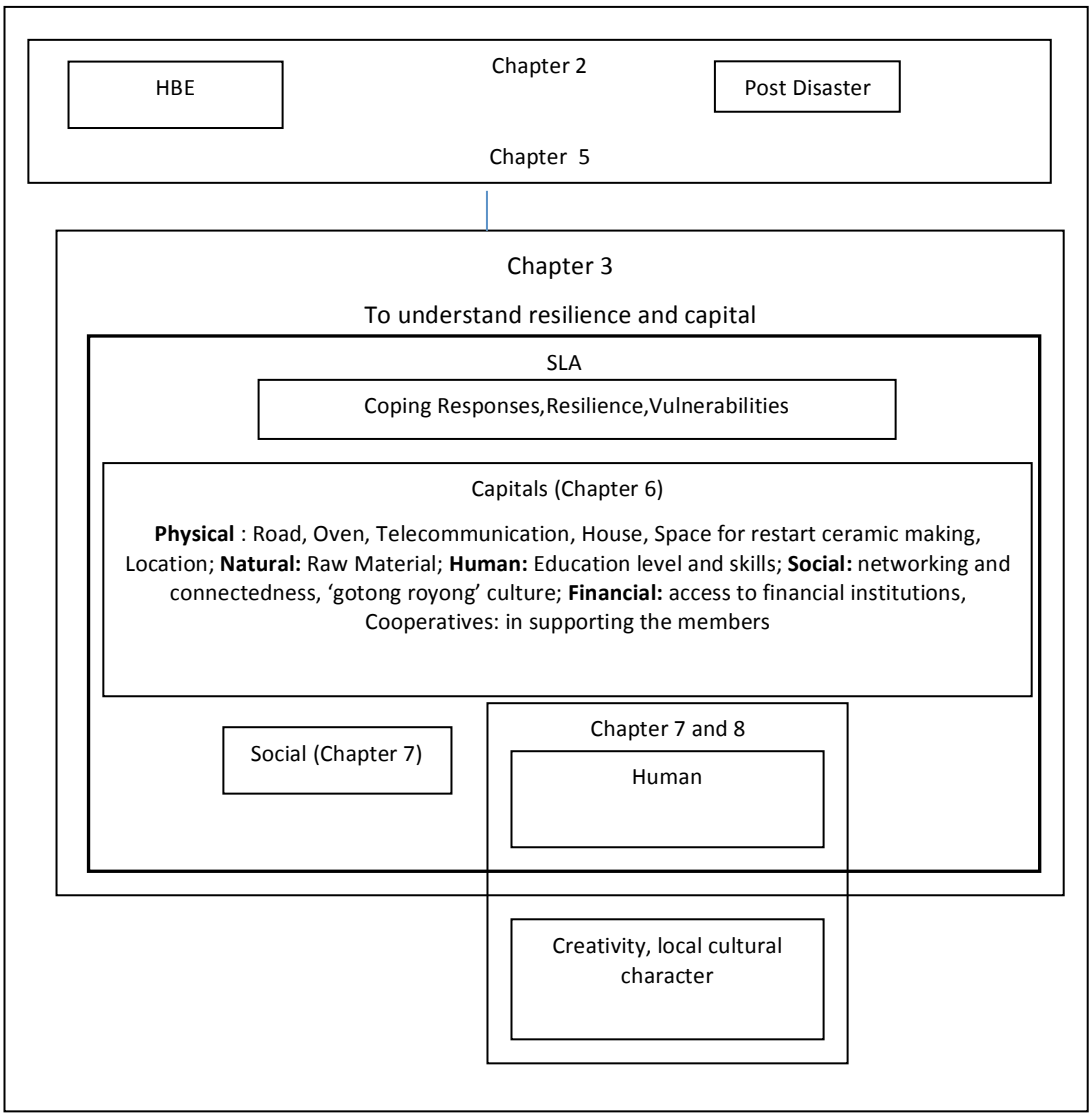

Figure 3. 9 Direction of Study

With regard to resilience as a concept that has been widely used in many disciplines, this research focuses on resilience in regard to the type of economic activity which is run by households in an area, which can adapt to calamity, particularly earthquakes. Davoudi (2012) mentions that resilience seems to contribute to the post-disaster literature and, therefore, this research can strengthen the post-disaster recovery literature on home-industry activities.

Table 3. 4 Shortcomings of the SLA and the Adaptation

Factors	SLA	Shortcomings of SLA	Echoing, Adaptation or Enrichment
Social capital	Networking and social connections	Need to preview particular aspect deeply	Bonding Bridging Linking
Human Assets	skill education	Need to consider not only economic based on human capital in perspective but also anthropology, psychology	Local Character Creativity Flexibility

By considering that socio-capital is important, both human and social capital is prominent in this study. Human capital has also been considered with other aspects of human characteristics. This forms at the individual level, which focuses on aspects of resilience in creativity in which the positive aspect of self-actualization seems to make people happier, more fulfilled and at peace, not grasping, worried, striving, and "motivated in other higher ways" (Maslow, in Richards, 2007: 289).

However, everyday creativity can also have a negative side that causes injury, such as manipulating other people, designing computer viruses, lying, and creating waste (Richards, 2007: 27).

Thus, the adaptation of human capital as a concept includes human character, which also contributes to the establishing of resilience of HBEs. These shortcomings are recognized and, by the new knowledge, these contribute to the addition to the SLA in terms of a particular capital (Table 3.3). Furthermore, chapter 4 will discuss the research method, before the context and analytical chapters will be explored.

Chapter 4

Research Methodology

Chapter 4
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Chapter 4

Research Methodology

4.1. Introduction

This chapter describes how this study was designed to answer the research question on how HBE households demonstrate the resilience through coping strategies based on the social-assets. This study is qualitative research using a case study strategy. DfiD's Sustainable Livelihood Approach (1999) is the analytical framework, as it is an appropriate approach for analysing the coping strategies of Kasongan ceramic HBE households in dealing with the post-earthquake impact. This chapter aims to describe the methodologies used, particularly the use of case study research, in analytical and explorative ways.

This chapter is divided into five parts. The first part presents the research method and approach of a qualitative and case study method, while the second part illustrates the research design, focusing on the steps taken. The third part discusses the data collection, explaining the strategy and ways the data were collected and managed. The fourth part explains the data analysis and interpretation, which are mainly framed in qualitative research. It focuses on the analytical framework based on the Sustainable Livelihood Approach, particularly on the assets of the ceramic HBE households and their surroundings. This chapter also includes the position of SLA as an analytical framework. The last section reflects on the writing method, validation, weaknesses, limitations of the research methods, and the strengths of the case study as a research method.

4.2. Research Method and Approach

The purpose of this research is to find out how and why HBEs in Kasongan have been resilient. As stated before, this research utilized qualitative as well as case study research as a research strategy (Denzin and Lincoln, 2011).

4.2.1. Qualitative Research

Denzin and Lincoln (2011) point out that the value of qualitative research is that it records a phenomenon. In this case, the focus is the process by which HBE households adapt to, and cope with, post-disaster impacts by utilizing the assets or capital of an SLA framework. Using theories based on socio-assets, particularly social capital in networking and connectedness among HBEs households, and the creativity and flexibility of HBE households in response to the disaster, the pattern and character of the resilience of households in Kasongan can be established through qualitative research. When a researcher seeks to answer research

questions in terms of exploration and recording phenomena, qualitative research is appropriate.

Another strength of qualitative research in relation to the research question are its qualities of bricolage. Bricolage, or the collation of evidence, is important in the understanding of a certain phenomenon, as *'The combination of multiple methodological practices, empirical materials, perspectives, as a strategy that adds rigor, breadth, complexity, richness, and depth to any inquiry '* (Flick, 2002, in Detynzin and Lincoln (2011)). This study performs bricolage by employing multiple methodological practices and empirical materials from many data resources. Indeed, this research used multiple data resources or triangulation (section 4.4), to explore the phenomenon of recovery and thus the resilience of HBEs.

In summary, as the research question is qualitative in nature, the appropriate approach is qualitative research. Even though both qualitative and quantitative data were utilized, it mainly uses qualitative research methods. Some quantitative data were used to describe the research setting or the context in a simple tabulation of frequency, or in cases where quantitative data were needed, for example financial assets, but it plays a limited role.

While qualitative research can answer research questions in different ways, case study research is a strategy to explore a phenomena or meaning of a topic, which in this study means knowing how and why HBEs households demonstrates resilience. As Denzin and Lincoln (2011) point out, case study research is one of many qualitative research strategies. Therefore, the next section focuses on case study research.

4.2.2.Case Study Research

In terms of the exploration and explanation of how a phenomenon occurs, case study research (Yin, 2009), helps to answer to the research questions of how and why HBE households were able to adapt and cope with the post-disaster situation

'How' questions for Kasongan HBEs cover their resilience in terms of how they demonstrate resilience and coped through the households strategies that led to their recovery. Meanwhile the 'why' questions focus on dominant factors in the coping process to recover HBEs. Thus, the 'how' and 'why' questions are closely related and are an important a part of the research question as Yin (2009:2) explains:

> *A case study* is *an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident....in other words, use the case study method because....[you] want[…] to understand a real-life phenomenon in depth, but such understanding encompasses[s] important contextual conditions –because they [are] highly pertinent to your phenomenon' (Yin, 2009a: 18).*

Case study research is flexible. According to Yin (2009), case study research can encompass both single and multiple case studies. In relation to this, this study used both single and

multiple case studies within this one case. The single case paid particular attention to the Kasongan area as a single unit and then, within this case, there were multiple cases studies: the ceramic HBE households in Kasongan. Furthermore, an in-depth study to find the answer to how and why HBEs were resilient required the stories of households' coping strategies to be understood in depth, and thus one case in the Kasongan area was more manageable.

4.3. Research Design and the Importance of the Literature Review

This study's design follows the protocols of case study research, which starts with a plan, forms a design with the support of the literature review, and then prepares, collects, analyses and shares the results of the study in writing (Yin, 2009).

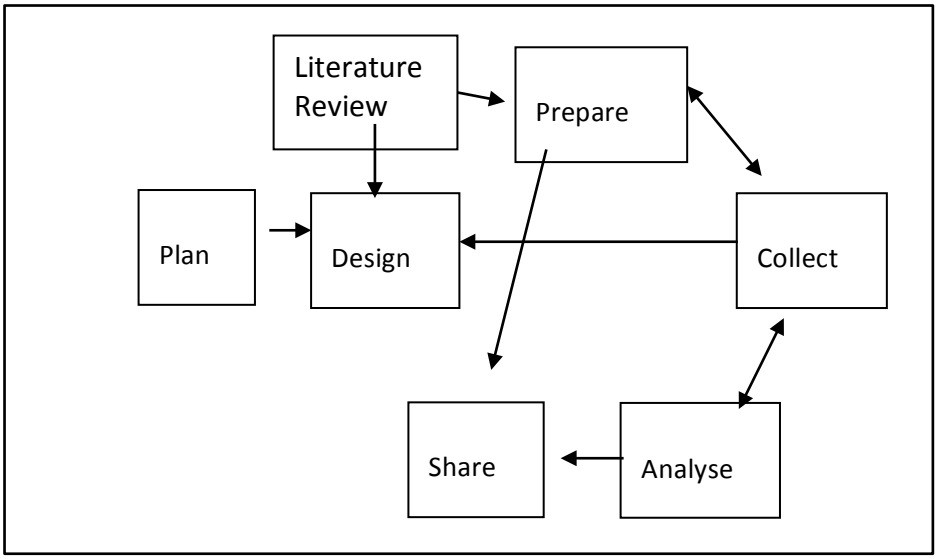

Figure 4. 1 Case Study Research Protocols

Source: Adapted from Yin (2009)

An important step in this research is the literature review (figure 4.1), which became prominent in building and adapting the analytical framework of the SLA. Also, the literature helped strengthen the concept of resilience, and provided valuable lessons from other places.

As Braun and Clarke (2013) point out, literature is important because it provides a comprehensive overview of existing research. Also, this stage is crucial as a theoretical framework to show the validity of single case study research. The theoretical review is an important part in building a pattern in order to create a 'model' of the resilience of HBEs, based on the SLA.

Braun and Clarke (2013) argue that the literature review also has a critical role as some of the literature can strengthen arguments. In relation to this study, for example, the concept of 'resilience' has been understood differently from various perspectives. Therefore, through the literature review, the various perspectives about the term resilience helped to define an appropriate concept of resilience for this study, which relies on the post-disaster context (see

table 3.1 on the definitions of resilience in Chapter 3). The exploration process to find an appropriate concept of 'resilience' was challenging as this concept has been covered in many disciplines and from many perspectives, and thus has been defined quite differently. However, similarity can be found in the keywords on ability and capacity to adapt, and the coping process (Section 3.3 of Chapter 3). With the literature review, important issues such as the definition of resilience and HBEs can be resolved. Indeed, this study has a particular standpoint in relation to the concept of resilience and HBEs.

In relation to the literature review, this research used various best practices, particularly in studies of the post-disaster situation. Lessons learnt from other studies have contributed significantly to finding out how to cope and thus to recover, so a resilience can be constructed. This was a lesson learnt from other places, for example, New Orleans (Aldrich, 2012), which faced a similar situation to the post-disaster circumstances in the Kasongan area. In addition, the study on New Orleans found that the resilience that was built in such a post-disaster situation developed based on the social capital involved in building resilience (Aldrich, 2012). From the literature, it was also found that the limitations of human capital in concept are supplemented by human capability in concept (Robeyns, 2005) (see figure 4.12). This leads to the need for creativity, adaptability and flexibility as a concept which contributes to an extension of the SLA, particularly in terms of human capital becoming human assets. The reason for this is that the economic value of 'human capital' in terms of human contribution is not the only way to build the resilience of HBEs, as human characteristics from a non-economic perspective are important, such as human creativity and flexibility (figure 4.2.). All of these findings and approaches have strengthened the analytical framework of this research.

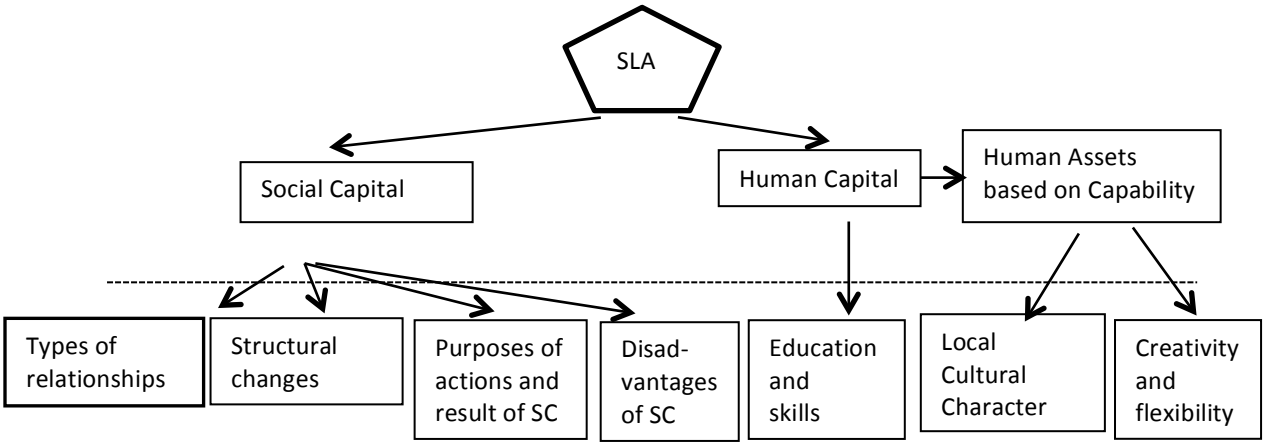

Figure 4. 2 The Role of the Literature Review: the Key Aspects of the Resilience of HBEs in the Post-Disaster Situation

4.4. Data Collection: Field Visits

This research includes two sets of fieldwork carried out in mid-2011 as the main data collection period, and additional fieldwork in mid-2013, to check and update data. The researcher was already familiar with the case study area, as it was the topic for her previous research (Tyas et al, 2009) and was also related to undergraduate project work on various HBE topics. This made the fieldwork more efficient. Kasongan HBE households were accustomed to being interviewed by students or researchers from various disciplines and topics, and indeed most of them were very friendly, and only a few did not wish to be interviewed. Kasongan ceramic HBEs were friendly and accepting, even without pre-arranged appointments. In conclusion, by having experience and being familiar with the research area, a pilot survey was unnecessary and instead the first fieldwork was carried out directly in mid-2011 as the main data collection.

The triangulation principle can be used to validate findings, and was needed in this research as 'different and contrasting methods of data collection yield identical findings on the same research subject: a case of replication within the same setting rather than replication across settings' (Miller and Dingwall, 1997: 38). The different sources of data build the validity of this research (Miller and Dingwall, 1997; Braun and Clarke, 2013). Furthermore, a stronger argument in relation to validation and triangulation, has been expressed by Flick, who noted that:

> *'the use of multiple methods, or triangulation, reflects an attempt to secure an in depth understanding of the phenomenon in question. Objective reality can never be captured. We know a thing only through its representations. Triangulation is not a tool or a strategy of validation but an alternative to validation* (Flick, in Denzin and Lincoln (2011: 5).

Triangulation of data was obtained via several methods, and multiple sources of evidence were gathered, such as secondary data, field notes, visual observations, survey mapping, questionnaires, survey, and interviews with the purpose of building validity by identifying the correct operational measures for the concept being studied (Yin, 2009). More details of the data collection and management used in this study, and how it was used to respond to the main question, can be seen in Table 4.1.

The data collection process was developed based on the research aims and questions. The objectives of the research, which are divided into four, were designed to answer the question of how HBE households demonstrates resilience on post-disaster recovery based on social and human capitals.

The second phase of the fieldwork in mid-2013 was designed to update the data, and check the findings. This included an interview session with an informal leader in Kasongan as a way of checking the findings of the first fieldwork from 2011, particularly the human assets in perspective, for example creativity, which was not explored a great deal in the first phase. In principle, the second fieldwork exercise was aimed at validating the data.

Table 4. 1 Data Collection Methods

	Research Objectives	Questions related to aim	Data Collection Method				
			Questionnaires	Interviews	Observational survey	Visual observations and mapping	Secondary data
1	To assess the importance of the context in which resilience takes place, particularly as related to HBEs and Post-Disaster Responses	What is the general character of the Kasongan area?	The general information regarding capital (natural, social, financial, human, physical capital)		The general information regarding capital (natural, social, financial, human, physical capital)	The general information regarding capital (natural, social, financial, human, physical capital	Documents, reports and articles about capital in Kasongan area
		What are the post-recovery responses? Who is involved and how are post-recovery responses working?		Interview with head of village, government staff, researcher interview with head of village, government staff, researcher		Visual observation and photos	Document/ report of reconstruction
		What are the types of HBEs which then interconnect with each other in a post- disaster situation?	The profile of HBE households such as the number of workers, income	Interview with the researcher who was doing research on the ceramic industry in the Kasongan area		Visual observation and photos from the field of: activities, physical facilities, particularly roads, housing conditions	A study of a researcher the in ceramic industry in the Kasongan area
2	To examine the coping strategies of HBE households with reference to the dominant capitals of the Sustainable Livelihoods Approach	What are the capitals or assets in Kasongan area based on SLA's capitals?	HBEs households in capitals(natural, social, financial, human, physical capital	Interview with HBEs		Visual Observation and photos of strategies	
		What are the coping strategies of households in a post-disaster context based on SLA capital?	HBE households in capital (strategies based on natural, social, financial, human, physical capital)	Interview with HBEs, informal leader, government staff		Visual Observations and photos of strategies	

	Research Objectives	Questions related to Aim	Data Collection Method				
			Questionnaires	Interviews	Observational Survey	Visual observations and mapping	Secondary data
		Which asset(s) or capital contribute most to the resilience of HBEs during post-disaster reconstruction?	HBEs households	Interview with HBE households, informal leaders, government staff	Observation, particularly in cooperative activities as part of social capital	Visual observations and photos of human and social capital : i.e. in creativity and social networking	
3	To examine the key factors which emerged in the resilience of HBEs.	How the dominant asset(s) or capital can work in building the resilience of HBEs?	HBEs households	Interview with HBEs households, informal leader, government staff	Observation	Visual observation and photos	
		How can the human capital indicators of education level and skill work in affecting the establishment of resilience in HBEs?	HBEs households	Interview with HBEs households, informal leader, government staff	Observation, particularly in activities to make ceramics	Visual observation and photos of human capital : i.e. education level and skills	
		How the social capital mechanism in connectedness can work in the emerging resilience of HBEs in a post-disaster situation?	HBEs households	Interview with HBEs households, informal leader, government staff	Observation, particularly in cooperative activities as part of social capital	Visual Observation and photos of social capital : i.e. in social networking	
4	To examine the extension of the human capital concept in human assets based on capabilities	What is the capacity of people to present the resilience of HBE households in the post-earthquake situation?	HBEs households	Interview with HBEs households, informal leader, government staff		Visual observation and photos of human assets: i.e. in creativity	
		How can human capability, particularly flexibility and creativity, contribute to the resilience of HBEs?	HBEs households	Interview with HBEs households , informal leader, government staff		Visual observation and photos of human assets: i.e. in creativity	

4.4.1. Questionnaire

4.4.1.1. Aims and Description of the Questionnaire

The questionnaire was designed to obtain a general overview of the ceramic HBEs in Kasongan. A set of questions were prepared to identify the characteristics of HBE households and their general coping strategies in a post-disaster situation. The targeted group was the households operating ceramic HBEs. Respondents were selected through a stratified selection process, modified from a categorization based on research into the ceramic industry in Kasongan (Nugraha, 2009).

Table 4. 2 Comparison of HBEs Based on the Industry Classification

Nugraha (2009)	Department of Trade and Industry, Republic of Indonesia (in Nugraha ,2009)	This research (adapted from Pearson, 2004)
Micro ceramic industry	Micro Ceramic Industry, with 1-4 workers	Small or traditional profile HBE (economic survival)
Small ceramic industry	Small Ceramic Industry, with 5-19 workers	Middle profile HBE (economic security)
Middle ceramic industry	Medium Ceramic Industry, with 20-100 workers	High profile HBE (economic growth)

A comparison of these categories is depicted in table 4.2. Small or traditional ceramic HBEs focus mainly on traditional and functional ceramics, such as kitchen utensils, so the focus of ceramic production of these HBEs is not aesthetic or even artistic ceramics as the purpose. Furthermore, the market is limited, as it covers the traditional market on the regional scale, for example the ceramics to the market only covers 20km from the Kasongan area, and they are usually transported by bicycle or motorcycle.

The middle profile ceramic HBEs have more workers than the traditional/micro HBE and also produce a greater variety of ceramics. These middle profile HBEs may include a finishing activity, and they may also imitate modification techniques. As part of operating their own HBE they may also become sub-contractors to the higher ceramic industry, as they receive orders to produce ceramics, or to perform part of the process of ceramic production, for the higher profile ceramic industry who contacts the buyer directly. The market for the middle industry is wider than for the traditional ceramic industry, as the products are sold in other provinces or even overseas. Some of the products are displayed in art galleries. The transportation modes are motorcycles, vans or trucks.

High profile ceramic HBEs have many more workers, and one or two have introduced modern management, such as specialization, supervision, and creative innovation, in order to sustain the industry. Many cooperate with other handicraft industries in terms of production,

transport, or marketing activities. They become partners for other types of handicraft, for example stone craft, wood craft or gypsum, in relation to exporting their products overseas. During the peak business period from the 1990s, some had started to employ several workers and regularly export their ceramic products. Even though most have many plots of land for their ceramic industries, including the plot of their house as the original place for their HBE, this type of HBE always uses part of their house or the plot with their house as part of the ceramic industry. Therefore, this type of HBE can have many plots, particularly when their ceramic HBE has grown large. The transportation used is vans, trucks, or containers.

By asking questions directly using the questionnaire the researcher obtained a direct impression at the house, by knocking on the door and asking permission to have a conversation and ask questions. Meeting the respondents with face-to-face the researcher was able to find out the type of ceramics, number of workers, and the physical appearance of the industries. Almost all the interviews took place during working hours, between approximately 9-4pm, so that the respondents could be seen at their activities, in front of the house or on the terrace, or in the backyard or kitchen, depending on their activities at the time. A few of the respondents requested an appointment as they were busy, and almost all of those who requested this were the high profile ceramic HBEs.

4.4.1.2. Selecting the Respondents

In a none-statistically representative survey, the study used the questionnaire in trying to acquire a general description of the ceramic HBEs in Kasongan. More importantly, based on the respondents of questionnaire, a smaller number of HBE household (15 HBEs households) were chosen to explore the strategies of the HBEs household in coping with post-earthquake impacts. 58 respondents were chosen to complete a questionnaire during 7 weeks of fieldwork in mid-2011. These were purposively selected as a cross section of the types of HBEs to ensure that there were a number from each of the HBE profiles: small (79 %), middle (16 %) and high profile (5 %) HBEs. They were identified by observing the scale of their operation, the number of workers and they seemed to specialise to produce in traditional, local or a more internationally design of ceramics. In relation to their expected profile was verified when they completed the questionnaire, the respondents fit with the expectation. All of them had a willingness to be part of the research when asked.

Details of the respondents are summarised in the Appendix C. The distribution of the respondents evenly distributed across Kasongan geographically and represented across the 3 identified categories was as depicted in figure 4.3.

4.4.1.3. Overview of the Questionnaires

The questionnaire process was used with the 58 respondents and the researcher filled in the forms one by one. The time needed ranged from around 30 minutes to two hours, as some participants were also quite busy and had to manage their HBEs at the same time. We were sometimes interrupted, for example, when customers came.

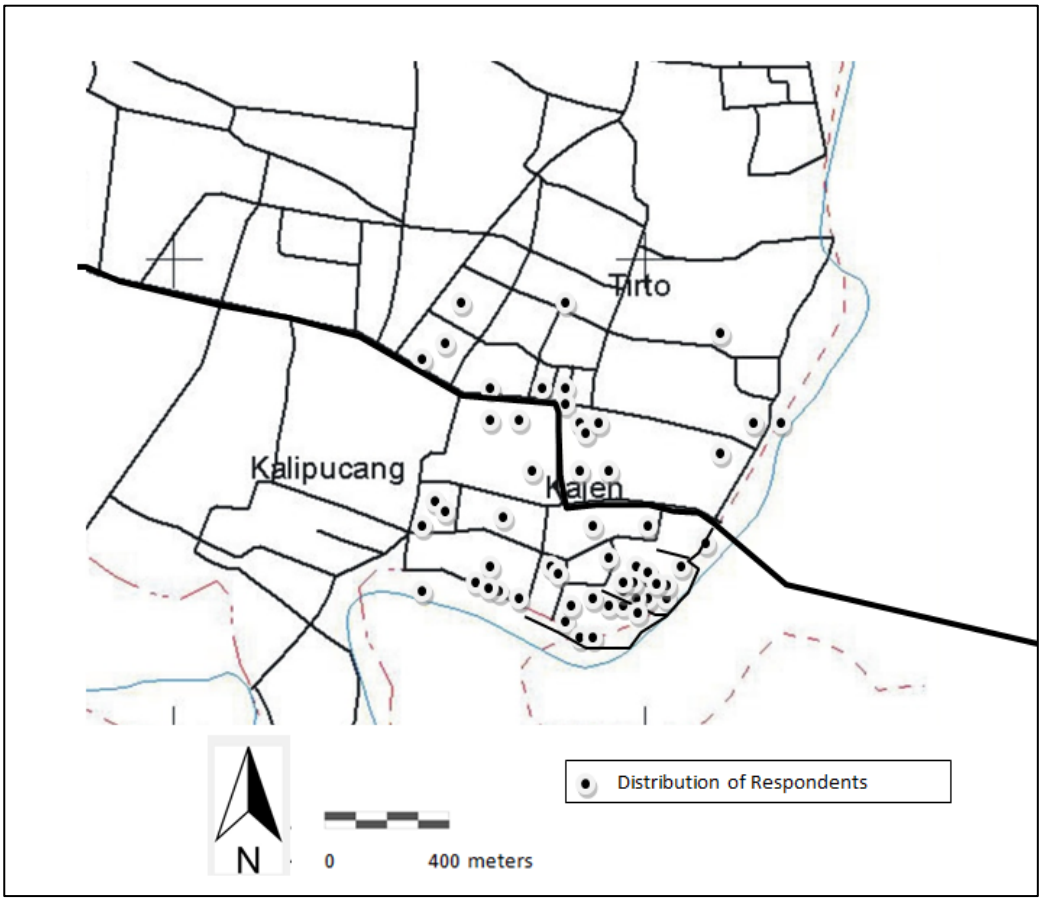

Figure 4. 3 The Spatial Distribution of the 58 Respondents

This study also collected data and information regarding assets or capital based on the SLA to the natural, physical, financial, human and social capital of each ceramic HBE household. The other information regarding the post-earthquake situation was also part of the questionnaire. In order to acquire information about assets or capital in daily life or pre-disaster, several multiple-choice questions were developed. The natural assets were related to the raw materials used by ceramic HBEs, while physical capital concerned the infrastructure related to ceramic production, such as roads, transportation, space buildings or land used for the production of ceramics. The financial capital of HBEs relates to the information of financial resources, such as banking or other sources of finance. In relation to human capital, the data looks at educational level and when and how the family became involved in ceramics. Networking or receiving orders from other ceramic HBEs, or any form of cooperation with other HBEs or neighbours, was considered in the social capital questions. Generally, a questionnaire aims to acquire general information, which then needs other tools to gain more complete and detailed data (a sample of the questionnaire can be seen in the Appendix A).

4.4.1.4. Problems and Data Quality

In anticipating the problem of collecting data by a self-completed questionnaire, the researcher asked the questions directly to the respondents. They preferred this because it was easier for them, and so the completion of the questionnaire was done by the researcher. It

was necessary to select directly which HBEs household would be represented by the three classifications used. Also, some participants were identified as examples of less resilient or more resilient households particularly in the context of the post-earthquake situation.

In general, the Kasonganese are friendly and accept visitors, and so almost all the questionnaires progressed smoothly and almost all the data was complete. The most difficult data to collect was household revenue, as they were reluctant to indicate the household cash flow. In order to gain this information, the researcher estimated from the ceramic products they could produce on average, and compared this to the costs of production. The results varied: some of the respondents were able to give information in detail, while other respondents sometimes offered information which was not useful for the research.

Finally, as stated before, due to the limitations of collecting data from questionnaires, other methods are needed to acquire more detailed data. Interviews are one such method, and this will be explained in the next section.

4.4.2. Interviews

Interviewing generates important data in relation to gaining an understanding of what a phenomenon is and to exploring the reasons behind it (Miller and Dingwall, 1997). Thus, a series of semi-structured interviews were done which became a main data resource, based on multiple interviewees, not only with HBE households but also with government staff, academics, researchers, and informal leaders. In depth Interviews were designed for HBE households to explore the resilience of HBE households (the strategies of HBE households in particular), whether semi-structured interviews were designed to support the data related the resilience of HBE household, by interviewing with non-HBE households (Appendices A).

4.4.2.1. In-depth Interviews

Different to the questionnaire which used questioning techniques to fill in the questionnaires, these 15 in-depth interviews were administered more selectively to the HBE households to explore these HBEs resilience level and coping strategies. They were chosen as they seemed represent various level of resilience of HBE households and had various livelihood strategies.

In the beginning, based on the distributed questionnaire, the researcher was able to obtain general information from various households, such as capital information. Then, more detailed data, particularly related to coping strategies in the post-earthquake context of various households, were acquired via the in-depth interview method. Based on the result of the questionnaires, the variation in the resilience level, or sense of continuum of resilience of HBEs, was likely to appear. Following this, several households were selected as cases for further in-depth interview.

An in-depth interview is a tool to explore information and thus it is very useful in answering how and why questions, such as those based on the existing resilience in the Kasongan area.The in-depth interviews of selected HBEs was conducted to focus on their coping strategies post-disaster. This is reflected in Chapters 7 and 8.

15 respondents were chosen from the 58 questionnaires to be interviewed as they seemed to be significant study cases of either less or more resilience in a continuum, as reflected in Chapters 6, 7 and 8. Some were selected as cases due to their uniqueness in their livelihood strategies in response to their post-earthquake situation.

The interview was based around the respondent's HBEs stories which consists of a general information such as history and their coping strategies of HBEs in facing the post-disaster impact. The processes of interviews were relatively straight-forward, as the respondents were familiar with the researcher and trusted her sufficiently to be willing to talk open and freely about difficult matters. Also, just after the questionnaires were conducted, the researcher had asked whether respondents would be willing to complete a further in-depth interview or a follow-up visit to verify her observations and interviews. The chosen respondents had all agreed that the researcher could return for further research activities including a further in-depth interview. As the second or even the third or fourth visits were in working hours, almost all of the respondents were interviewed at home without appointments. Only particular HBEs entrepreneurs needed an appointment for the second or third interviews, as they were busy. In general, in-depth interview processes were not difficult and it was also combined with observations as well.

4.4.2.2. Semi-structured Interviews

Semi-structured interviews were also held with several key informants, such as researchers, government staff, informal leaders in the Kasongan area, and also university staff involved in the post-disaster reconstruction programme in Yogyakarta and Aceh. This list is as follows:

1. The Head of Infrastructure section of the local planning board
2. The former Head of Infrastructure section of the local planning board
3. The Head of Industry and Trade Agency of the local government
4. The Head of the Unit of Technical Management of Industrial and Trade Ministry in Kasongan
5. The head of the community wellbeing section in the village of Bangunjiwo
6. The Chief of a sub-village of Kasongan
7. An informal leader in Kasongan, who owned a high-profile home-based ceramics enterprise, who was also an artist and has also authored books aboutKasongan.
8. A former informal leader in Kasongan, who also still had a high-profile home-based ceramics enterprise
9. University staff and researchers knowledgeable about Kasongan and post-disaster studies.

4.4.2.3. Data Quality

During the semi-structured interviews to obtain the information from experts, academicians, informal leaders and government staffs and in-depth interviews of HBEs households notes were taken to remind the researcher of the main points of the interview, and a digital recorder was used to record all the details; however, once when the recorder was not working, field notes alone were taken. These acted as backup information. Field notes were written up every night after the field work activity, so they became more than a way of noting the conversation or interview, or the daily activities of the day. They also helped form an impression of the day's fieldwork for the researcher, as well as the plan for next day's fieldwork. In line with good ethical practice, consent to record was requested from all the respondents.

The interviews thus became one of the main data sources for this research. All the interviews were conducted in Indonesian or Javanese, but not all of them were transcribed. By listening to the interviews several times, all the main points were noted; only selected interviews were then transcribed and translated into English particularly when important quotations were used to build the arguments of the research. As a triangulation technique was used, these transcriptions also needed to be combined with other data (as quoted in several parts of chapter 6, 7, and 8 and also seen in Appendix E).

4.4.3.Visual Observation and Mapping

Visual observation was achieved in two stages, on the macro and micro levels. At the beginning, the macro level was designed to obtain an impression of the physical appearance of the Kasongan area, and at the micro or household level, mapping of the space used for economic and domestic activity and helped to support the distribution of the questionnaire. From these observations, a physical presentation of the Kasongan area was derived, as depicted in figure 4.4.

Based on observation, the Tirto area in the northern part of Kasongan had a moderate density of buildings (see figure 4.4). The houses were relatively new and the plots of land were big, as many newcomers had bought land and become Kasongan residents. Meanwhile, in the southern part, particularly in the older, eastern part, the area was recognized as the root and origin of ceramic activities and enterprises. Old Kasongan had relatively smaller land plots for each household, and the gangways were narrow. The same physical characteristics were seen in the western part with small land of plots, namely Ledok Kalipucang, and it also had many narrow gangways or alleys inside the kampungs. This area developed after the old Kasongan area.

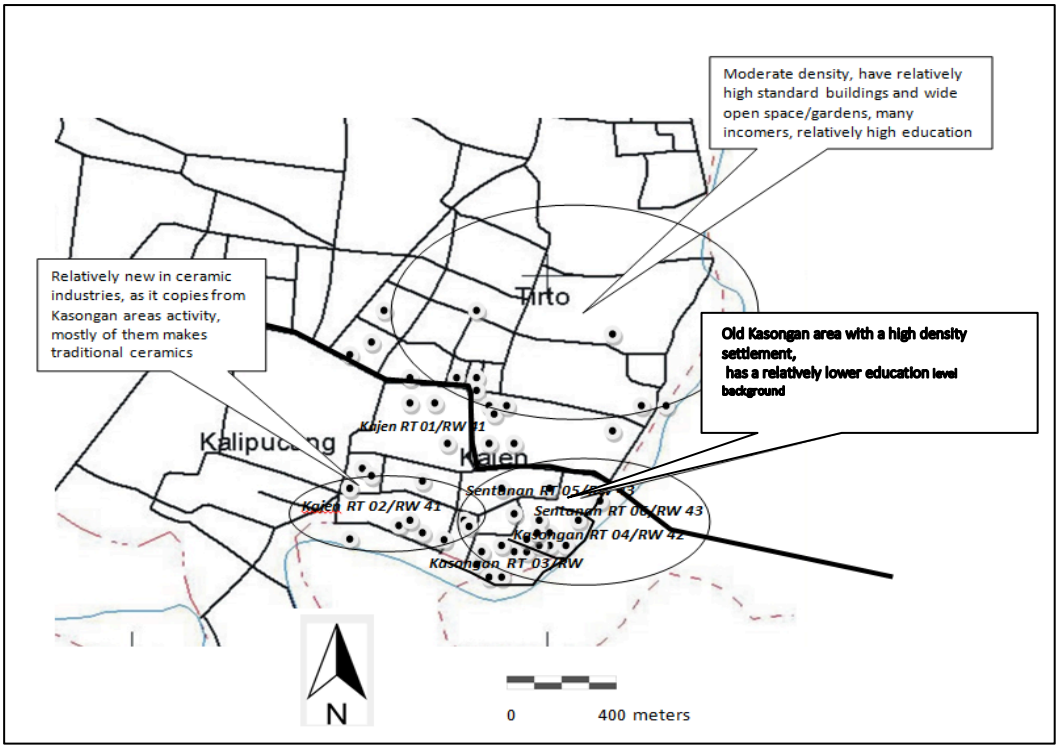

Figure 4. 4 The Variation in Physical Presentation in the Kasongan Area

The visual observation and mapping recognized the road conditions, which ranged from main roads to gangways or alleys which only a bicycle could pass through (figure 4.5). Secondly, the observation was designed for the micro level particularly in the (mapping) space used for ceramic activities in a home. The main purpose was the recognition of the dual function of activities as a home or business premises.

There is some problem in relation this use this technique of data collection. Data collection through visual observation also helped map the HBEs at the household level, to determine which part was used for domestic activities, ceramic production, or for selling activities. Some respondents were reluctant to open their house when they worked outside, saying that their house was unclean, so the researcher respected their wishes, but another approach had to be taken to elicit an answer by asking how many bedrooms they had, or asking about the dimensions of their house and rooms. In this way, the researcher had an estimate on which to map the percentage of space used for both the HBE and the non-HBEs from the outside of the home. This is an example of using another approach to acquire data, without decreasing the quality and while respecting respondents' privacy.

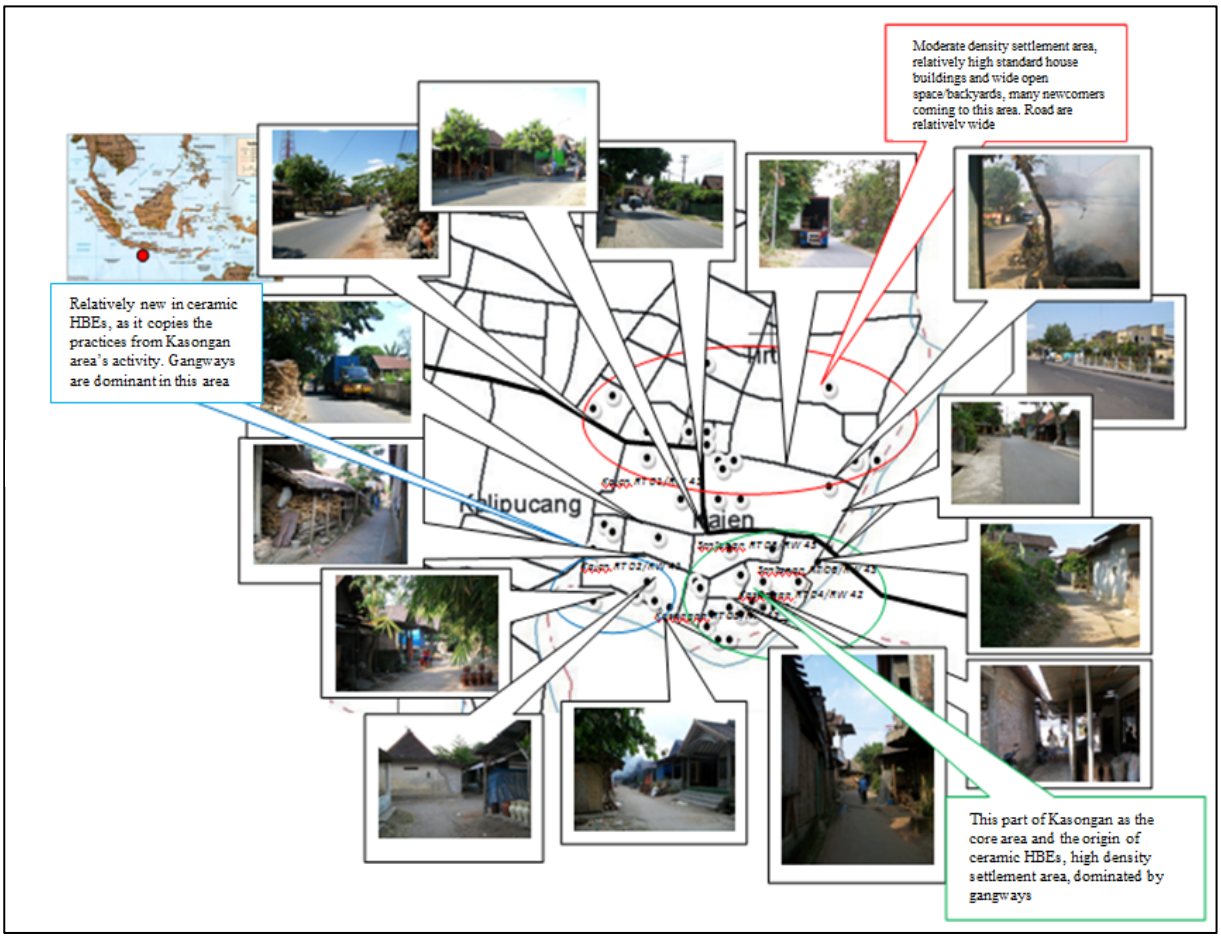

Figure 4. 5 The Variation in Physical Presentation in the Kasongan Area: Road Conditions

4.4.4.Observational Survey

The observational survey is designed to obtain a sense of the social nature of an object (Denzin and Lincoln, 2008). The researcher thus became an observer to achieve some sense of the cooperation involved in the functioning of social capital in parts of the Kasongan area. Included in this was participation in the activity of cooperative meetings in RT 3 and 4 in Kasongan village. RT is a group of neighbouring households, usually consisting of 20-40 households. Thus, the researcher was able to observe these activities by sitting and joining in the meetings.

Figure 4. 6 The Observational Surveys

a. A meeting in a cooperative (source: fieldwork, 2011)
b. Daily activities by chatting on the bench(source: fieldwork, 2011)

In addition, the researcher also observed daily life while talking with residents. To become an observer, the researcher must feel acceptance and even a bond with the participants and those around them. This is evidenced by the fact that even when the second fieldwork was held in 2013 in another part of Kasongan, participants from the earlier research would stop their motorcycle to talk and chat with the researcher.

4.4.5.Secondary Data

Secondary data collection is a method of acquiring more comprehensive data which cannot be found during the primary data collection stage, particularly in the case of events in the past or which only happen annually or at other times than the duration of the fieldwork. Some documentary data related to the archives from the post-disaster situation in 2006.

Secondary data collection involved searching for and reviewing existing documents, research and publications with information on the research topic and case study area. Several significant documents were gathered from the Infrastructure Section at the local planning board (Bappeda Bantul) and also the Centre of Disaster Research at Gadjah Mada University (Pusat Studi Bencana UGM).

A blog from the website of one of the informal leaders also constituted data for this research. By analysing his written text on Kasongan ceramic enterprises, as well as the Facebook page that provided information about the activities and events held in the Kasongan area, more useful data was acquired (Figure 4.7). This person is depicted in more detail in the next section.

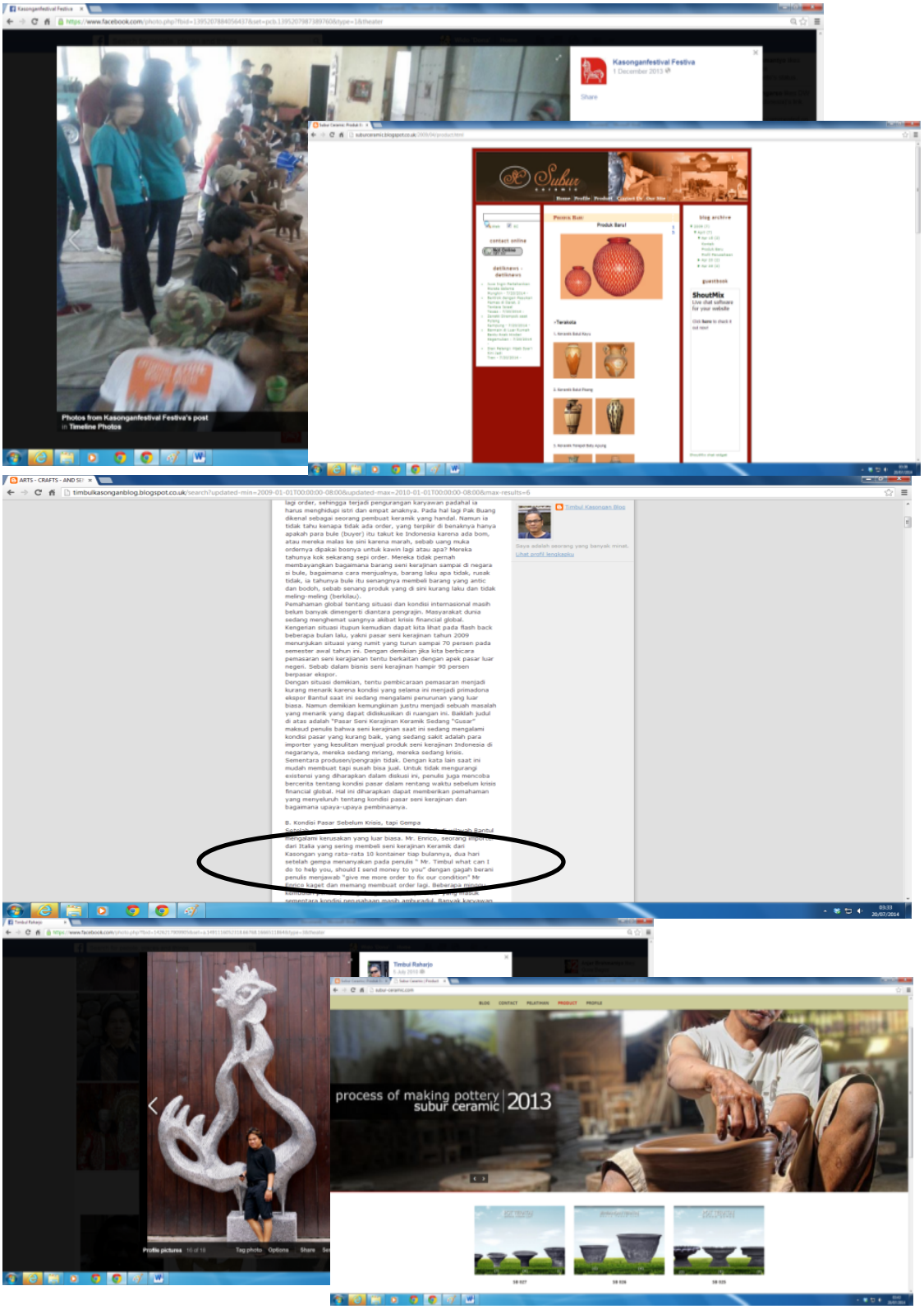

Figure 4. 7 Documentation from internet source

4.4.6.Important Data Sources

Considering that case study research needs in-depth information, one key person was chosen as a contributor in multiple-roles. Timbul Raharjo was selected as a local person and previously as the owner of a small scale ceramic enterprise with few workers. But then, the enterprise grew and employed more workers, with the business export capacity to become a high profile of HBE. With an art education background, Raharjo was also an artist and lecturer at the Indonesia Art Institute in Yogyakarta. From his books on Kasongan, a great deal of information and documentation on Kasongan was derived pertinent to the research. His role as informal leader also gave him a role in organizing Kasongan people to take part in events, and other forms of organization, in Kasongan. Thus, his various roles as artist, informal leader, writer on Kasongan, and owner of a ceramic HBE meant that he was a significant data source for this research (Figure 4.8).

Figure 4. 8 A Significant Figure in the Kasongan Area, in his Cafeteria on the Riverside, and his Books

4.4.7. Anonymity and Consent

Qualitative research relies on qualitative data, and interviews are one such important source. Both the questionnaire responses and the experiences regarding the post-earthquake situation and responses to it differed across HBE households. By always asking permission at the start of each interview, the participants' consent and willingness to be interviewed could be obtained. 58 HBEs households responded to the questionnaire and of these 15 selected households were interviewed several times in in-depth interviews. From this, a continuum of resilience of HBE households could be developed based on the HBE's return to a pre-earthquake business situation. In order to protect privacy and identity of those respondents who requested it were given anonymity.

4.5. Data analysis and Interpretation

Miles and Huberman (1994) point out a protocol (figure 4.9) for interpreting and analysing data using a qualitative approach that utilizes an inductive process which also values subjectivity and reflexivity (Braun and Clarke, 2013). The process of interpreting data has to follow several steps and this study employs systematic data analysis and interpretation, using similar steps.

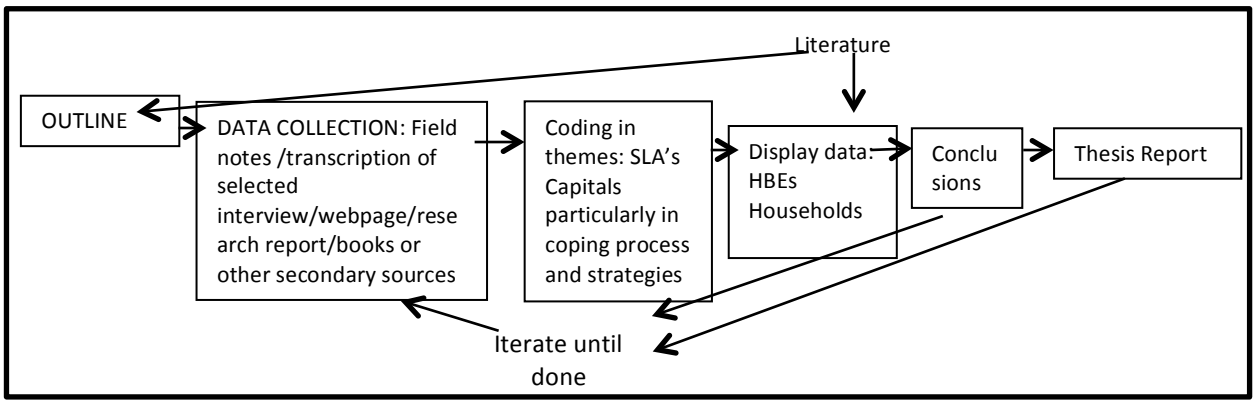

Figure 4. 9 Steps Taken in Data Analysis and Interpretation

Source: adapted from Miles and Huberman (1994: 85)

Using multiple data sources, the interpretation and analysis of the phenomenon was conducted. This was in line with Denzin and Lincoln (2011: 3), who point out that qualitative research consists of:

> *'a set of interpretive, material practices that make the world visible. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self.'*

With such an interpretive and inductive process, as stated before, the researcher did not transcribe all the interviews. Instead, by listening to all the recordings several times and becoming familiar with them, themes and variables were found. These themes refer to the SLA capitals: natural, social, human, physical and financial capital with a focus on social and human capital.

By combining the interview transcriptions, photos or visual surveys and mapping as well as observational survey the themes were classified into the five capital assets of the DfiD's SLA in the post-earthquake situation. In addition, the daily life situation in the pre and the post-disaster situation were described and analysed in order to compare situations offering a rich and thick explanation. The interpretive process was also used to define how human and social assets are dominant in the ability of ceramic HBEs to recover in post-earthquake situation. In conclusion, this interpretative and inductive process using multiple resources has led this research, combined with iterative processes (figure 4.9).

4.5.1. Coding in themes

The coding of field notes, transcription of interviews, webpage, research report and books as done manually. It began with analysing all the SLA capitals, particularly the adaptation strategies, and then moved to focusing on people and networking, known as social capital. At the beginning, this study was not designed to be focused on social capital only, but all capitals. However, with the iterative process in qualitative research, this changed based on the fieldwork findings. The interviews with researchers, informal leaders, and government staff,

combined with the secondary data findings, became a prominent consideration in relation to the themes chosen in focusing on the human and social aspect in response to the post-disaster in the Kasongan area. This was strengthened by the observational, visual survey and observations in how to acquire data. Starting with analysing all the capitals of the SLAs, this study then focused on socio-assets (social and human assets) (Figures 4.2) via an interpretative, inductive and iterative process (Figure 4.9). This used not only capital but assets as terminology, as capital seems to have a more limited perspective, for example, human capital is related to skills, knowledge and education only (Shultz, in Lin (2004); Becker, in Stanfield (2009)). However, as Sen (1997) and Robeyns (2005) argue, the concept of human capability covers more than the concept of human capital. From the social assets perspective, connectedness in the Kasongan area contributed to building resilience in HBE households as well. Therefore, the data, which consists of interviews with HBE households, government staff and informal leaders, as well as observations, show that human and social assets are prominent factors in the resilience of HBEs (Table 4.1 and Figure 4.2).

4.5.2. Display Data

In relation to displaying data, Miles and Huberman (1994) point out the importance of exploring and describing within case displays. As stated before, this research uses both single and multiple cases within the single case. The display of the multiple case data was embedded into the single case study and display data also formed inside the Kasongan case, particularly in the household unit, in cross-case displays. These have the aim of 'emerg[ing] *with a well-grounded sense of local reality'* and also of

> *'see[ing] processes and outcomes across many cases, to understand how they are qualified by local conditions, and thus to develop more sophisticated descriptions and more powerful explanations'* Miles and Huberman (1994: 172)

A case-order was also utilized to see the variation and a sense of continuum across HBEs, so the level and the reasons for or factors behind the resilience could be explored. This can be seen in Chapter 7 in the section on human and social capital analysis.

In addition, in terms of the quantitative data, the displaying data from the selected 58 respondents' questionnaires were formed as a distribution frequency to help describe the profile of the 58 ceramic HBEs. This became a general depiction of ceramic HBEs in the Kasongan area.

4.5.3. A More Detailed Report: Chapter Writing

The variables and themes of this study have been developed. A more complete depiction and analysis of the display data followed the principle of variables needed, as shown in table 4.3.

Table 4. 3 Variables or Themes for the Resilience of HBEs based on Social-Assets

Chapter	Objectives	Main Issues	Variables or themes
5	To assess the importance of the context in which resilience takes place, particularly as related to HBEs and post-disaster responses	general characteristics of the Kasongan area actors and mechanism of post-recovery responses the types of HBEs building social capital	General characteristics: history, geography, population, land use, art and culture and ceramic industry process Post-recovery responses of government policy and programmes, stakeholders involved in post-disaster situations Types of HBE contributing to social assets
6	To examine the coping strategies of HBE households with reference to the dominant capitals of the Sustainable Livelihoods Approach	the capitals or assets based on SLA's the coping strategies of households	Coping strategies based on physical, natural, human, financial, and social capital, also cooperation
7	To examine the key factors which emerged in the resilience of HBEs	the factor of human capital the factor of social capital	Human capital indicators in skills and education level in relation to coping strategies Social capital indicators in relationship pattern, structural changes, purpose of action of social capitals
8	To examine the human capital concept in human assets based on people capabilities	human capability indicators	local people characteristics creativity and flexibility

This thesis depicts a flow of logic and a framework to answer the research questions, divided into 9 chapters (Figure 4.10).

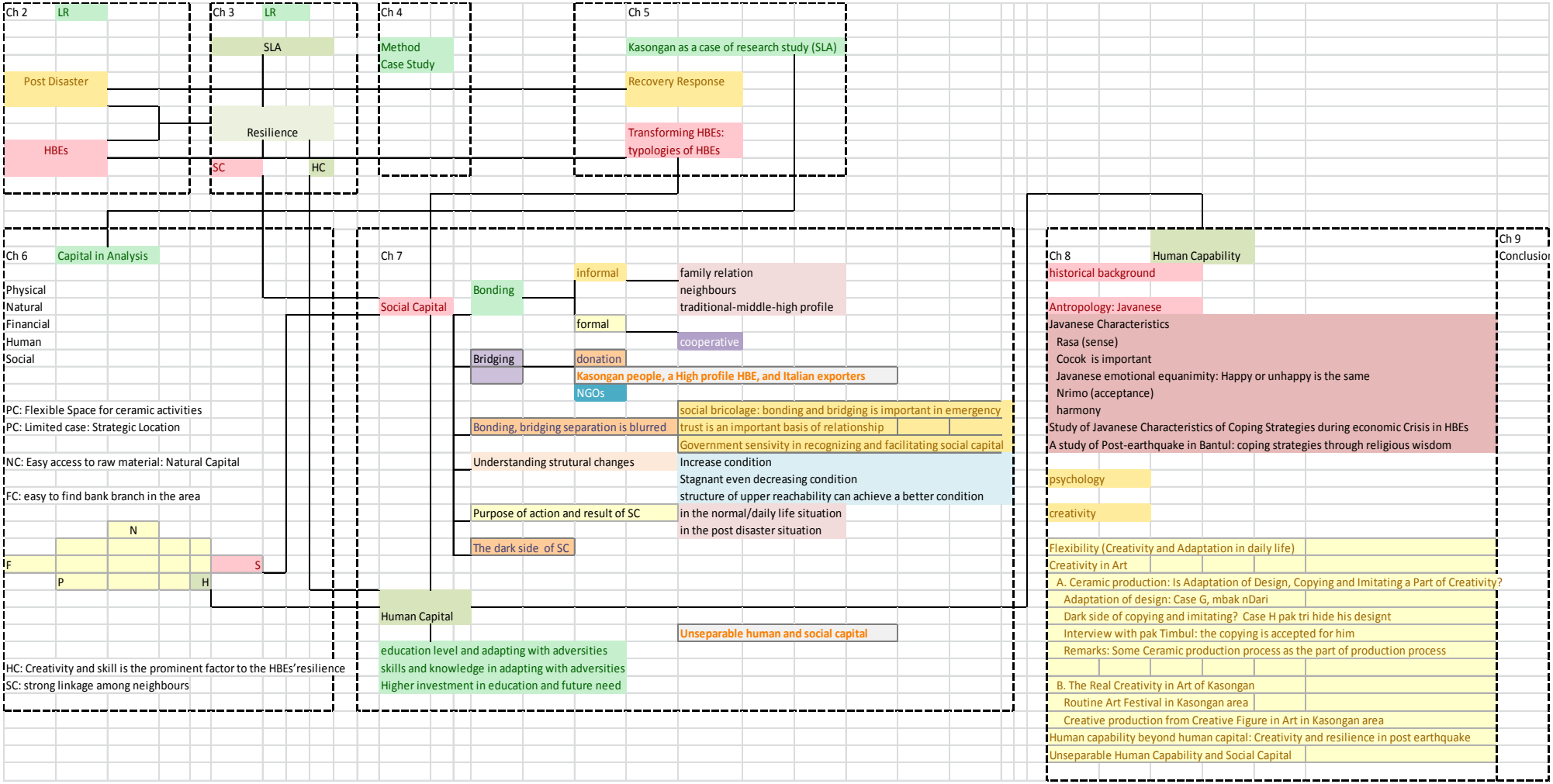

Figure 4. 10 **The Chapters and their Interrelation**

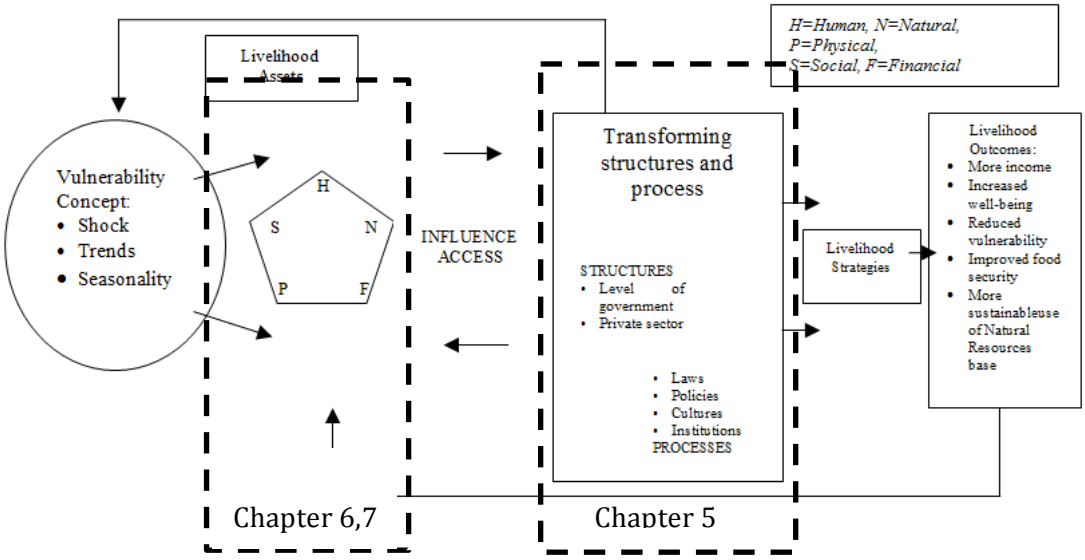

Figure 4. 11 Sustainable Livelihood Approach Frameworks and Indirect Effect to Chapters
Sources: Adaptation from DFID, 1999

The capital concept was adopted from Marxist theory on the SLA (Figure 4.11) and is supplemented with the Capability Approach (Figure 4.12).

As the guidelines for the SLA in figure 4.11 suggest, it is not clear how humans adapt to and cope with changes, including adversity in relation to the post-disaster situation. More importantly, within the human capital concept, human beings seem to have the means to achieve productivity (section 3.5.1.); however, human beings must be the centre of development and thus human characteristics need to be explored, as the Capability Approach (CA) has suggested (figure 4.12).

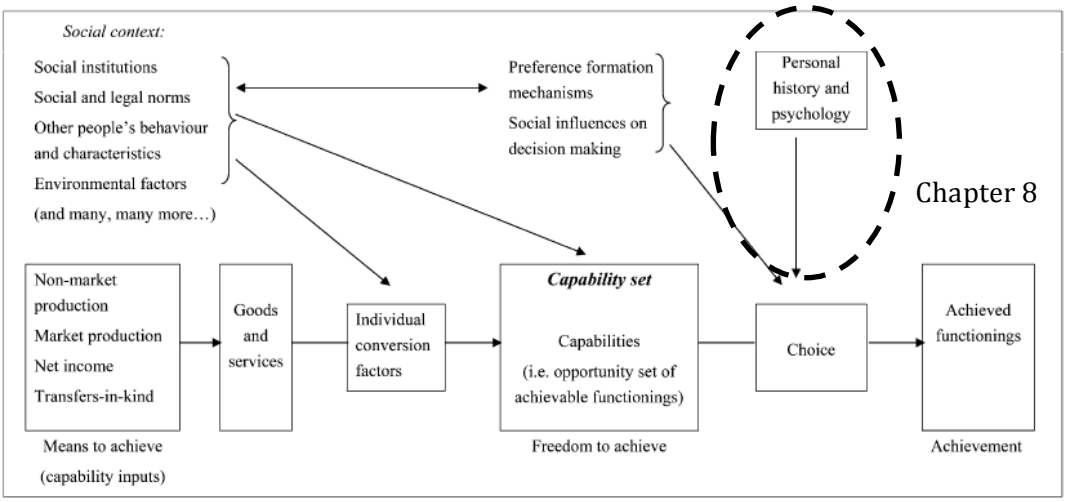

Figure 4. 12 A stylised non-dynamic representation of a person's capability set and social and personal context and the chapter
Source: Adapted from Robeyns (2005:. 98), note: dash line added

4.6. The Position of SLA in this Research

SLA as an analytical framework had an important role in this research. The SLA is able to help explain how livelihoods can adapt to and cope with adversity. When adversity in the post-disaster context is short rather than long term, 'coping' is an appropriate mechanism in response to this situation, rather than 'adapting'. This is because 'adapting' is likely to reflect a long process in response with a greater changes or adversities, as it is about the biological unit in response to change within the environment. Furthermore, rather than focusing on post-disaster management, this research placed more attention on the contributing assets of the recovery process of HBE households in a post-disaster situation. This study focuses on asset and coping strategies based on capitals, as demonstrated in Chapters 6, 7 and 8 in particular. Also, a description of the recovery process and various participating stakeholders in the post-recovery response, as explained in Chapter 5 (section 5.4), is part of the application of the SLA.

4.7. Reflection

4.7.1.Case Study and Writing Methods

The case study as a research method has many advantages, particularly when there is a need to understand a certain phenomenon - in this study the phenomenon of resilience. The research followed several principles regarding writing methods, in that the writing should be open and have a good narrative, using a story-telling method. It should also avoid linking to only one discipline, in order to produce a deep case study report.

According to Flyvberg (2006), the strategy for performing case study research is openness in writing, as Peattie (in Flyvbjerg, 2006:237) said: 'it is simply that the very value of the case study, the contextual and interpenetrating nature of forces, is lost when one tries to sum up in large and mutually exclusive concepts'. To guarantee this openness, Flyvberg (2006) suggests that first writing up the case study as a story in all its diversity is important, as there are complex and sometimes conflicting stories given by the actors in the study. This principle was confirmed in this research as many stories came through, showing the different coping strategies among households. This study, indeed, as qualitative research, has relied on stories describing how HBEs can be resilient. Although not in a whole story, but instead in a paragraph, field notes or quotations, the stories describe the coping responses post-disaster.

The narrative in the story-telling should begin with a particular phenomenon, and is then followed by narrative inquiries which develop descriptions and interpretations from the perspective of the HBE households, researchers and others. According to Flyvbjerg (2006) the story-telling of the informants is then adopted in quotations or in narration, which ranges from a small or traditional HBEs to higher-profile entrepreneur. These confirm the principle of Pierre Bourdieu called virtuosos, known by Hubert and Stuart Dreyfus as true human experts, as they best know their feelings, what has happened, and what has been done in order to cope with the post-2006 earthquake impact. A good narrative, according to Flyvbjerg (2006: 240), should not leave questions for the reader, as all the answers should be supplied. This also applies in

this research, as quotation and narration became the main tool to depict the phenomenon of 'coping'. This study uses many quotations or simply descriptions or narration of cases as part of the storytelling technique, in order to demonstrate that the Kasongan people or households have their own coping strategies in relation to their expertise or skills.

Secondly, the study takes the approach of not linking the case to theories from any one academic specialization, and instead links it to broader philosophical positions that cut across specializations. By doing this, readers from different backgrounds can make different interpretations and 'draw diverse conclusions regarding the question of what the case is a case of' (Flyvbjerg, 2006 : 238). In doing so, this research has aimed to explore in detail, and by utilizing multiple perspectives, how and why such resilient home-based enterprises have developed, through multi-discipline perspectives. These include sociological perspectives such as social capital analysis, human capital on a more economic perspective, psychological perspectives on creativity and anthropological perspectives on local people's characteristics. Thus, employing a multi-discipline perspective conforms to Flyvbjerg's (2006) suggestion of creating diversity within a case.

4.7.2.Validation

The validation of this research has been developed using the tactics depicted in table 4.4. One of principles of triangulation or multiple sources of evidence has been discussed before, in section 4.4 of data collection.

Table 4. 4 Case Study Tactics for Four Design Tests

Tests	Case Study Tactics	Phase of Research in which tactic occurs
Construct Validity	**Use multiple sources of evidence**	**Data collection**
Internal Validity	**Pattern matching** **Explanation building**	**Data analysis** **Data analysis**
External Validity	**Use theory in single-case studies**	**Research design**
Reliability	**Use case study protocol** **Develop case study database**	**Data collection** **Data collection**

Source: Adapted from Yin (2009b)

Pattern matching was also part of this study by the use of the analytical framework of the SLA (figure 4.11), particularly with capitals in understanding how HBEs households demonstrates resilience. Explanation building was likely to be confirmed by the use of lessons learned or cases (figure 8.8), as well as the arguments of Human Capability (figure 4.12). Using both single and multiple cases at different scales in a topic will also build a continuum of resilience in the Kasongan area. This is also part of explanation building.

4.7.3. Limitations and Criticism

Case study research is a robust approach in contemporary social research, as it can provide detailed descriptions. However, according to Torraco (2004) the level of detail in a case study is also a limitation because it can be overly complex and may lack a coherent, integrative perspective on the phenomenon. However, case study research method is the most appropriate with regard to this study. However, by using the SLA as the analytical framework for this study, this weakness can be reduced. This is because the SLA is the most appropriate tool to explore how the resilience of HBEs exists and can simplify the complexity and become more structured.

Case study research has been subjected to criticism, the strongest of which concerns the use of case studies as a scientific method. This view is based on the idea that one cannot generalize on the basis of a single case (Flyvbjerg: 2006). This is a typical misunderstanding among proponents of the natural sciences. However, it has been clearly illustrated that case studies can be robust, as stated by Beveridge (in Flyvbjerg, 2006:226): 'more discoveries have arisen from intense observation than from statistics applied to large groups'. This does not mean that the case study method is a relevant research method for every single research study; this depends instead upon the topic and research question.

The same criticism was noted by namely that the case study approach is not useful for generalizing or comparison. Interestingly, Flyvbjerg (2006) argues that, based on Kuhn's suggestion, generalization is just one of many aspects within the wide range of practical skills required to carry out scientific work. This is because in the Germanic languages the term 'science' (Wissenschaft) means 'to gain knowledge'. More importantly, Flyvbjerg (2006:227) states that:

> *'A formal generalization is only one of many ways by which people gain and accumulate knowledge. That knowledge cannot be formally generalized does not mean that it cannot enter into the collective process of accumulation in a given field or in a society. A purely descriptive, phenomenological case study without any attempt to generalize can certainly be of value in this process and has often helped cut a path toward innovation'.*

Regarding this study, as generalization is not the only way to contribute to knowledge, the case study method of the phenomenon of the resilience of ceramics HBEs in the Kasongan area has contributed to the knowledge of resilience, as depicted in Chapters 6, 7 and 8.

4.7.4.Strengths

Case study research has strength in being able to 'close in' and also in its contribution to the development of theory.

The strength of the case study is that it can 'close in' on real-life situations and test views of the phenomenon directly, as reflected in the story-telling of the informants. The 'closing in' principle has been applied in this study by the methods used to collect data. The secondary

data, and the primary data collected via survey interview, observation, and in-depth interview, make it possible to describe the phenomenon as real life.

Case study research differs from other research methods in its ability to expand and contract. A contracted approach conducted upon a single study in a single case setting could rely on just quantitative or qualitative data, and thus it could be viewed that case study research can be an alternative to other methods in order to build theory, as it meets the requirements of developing a theory (Dooley, 2002).

Unlike Bryman (2008), who argues that a single case should be unique, or representative, and that the most important point is not to generalize that theory to others, but to find a theory from that one case study. Lynham (2000) and Torraco (2004) argue that case study research can develop a theory, particularly in the human resources field. Although it is premature to state that this study of the resilience of HBEs has developed a theory, as a new theory development requires debate and a reiterative process. This study contributes to knowledge particularly in the adaptation and enrichment of the SLA. By echoing the contribution of social capital in the post-disaster context as the literature suggests, this study also confirms the importance of social capital. It explains the importance of social capital in networking combined with human assets and capability, not only based on education level and skills, but also on the creativity and flexibility of the individuals in the HBE households who are recovering in the post-disaster situation.

This research uses a third type of case study research (Blaikie, 2000:219-220) – Heuristic Case Study –which builds theory by the use of a series of non-isolated cases in order to facilitate theoretical developments to find a better knowledge of the resilience of HBEs. Non-isolated cases in this study are related to the inclusion of HBE households, which seem to be both non-resilient and resilient. These cases represent a continuum of resilience, illustrating the recovery levels of HBE households following the earthquake.

As stated by Eckstein (in Blaikie, 2000: 220):

> *'One studies a case in order to arrive at a preliminary theoretical construct. That construct, being based on a single case, is unlikely to constitute more than a clue to a valid general model. One therefore confronts it with another case that may suggest ways of amending and improving the construct to achieve better case interpretation: and this process is continued until the construct seems sufficiently refined to require no further major amendment or at least to warrant testing by large-scale comparative study.'*

Based on Eckstein's thinking, it is clear that case study research is able to build theory, and therefore using case studies allows amendments and improvements in order to achieve better case interpretation. This study also explains a continuum of resilience of HBEs households (Chapter 7) in order to give a description of the resilience of ceramic HBEs.

4.8. Concluding Remarks

Chapter 4 provides a tool to understand the phenomenon of home-based enterprises in the Kasongan area within an analytical framework. Thus, qualitative research as a case study facilitates this as it can provide answers to how HBE households can cope with a post-earthquake situation by drawing on social-assets. With an urban planning background, the researcher is familiar with a multi-disciplinary perspective, leading to policy making. Studying the resilience of HBEs is also multi-disciplinary.

Furthermore, by recognizing the characteristics of case study research, particularly in openness in writing and narrative story-telling, a link to just one specialization can be avoided and thus this study has applied case study research principles. By the explanation of the nature of a case study research method, both the strengths and weaknesses of this research are explored; however, the strength seems dominant, showing a case study's capacity to explore the case and identify the research questions by means of multi-resource data. The problem is its complexity and lack of coherence, but the strength of this study is 'closing in' and its heuristic nature in explaining the resilience of led to the ability to answer the research questions about the prominence of social assets in recovery.

Additionally, case study research also seems to have the capacity to build theoretical concepts of 'resilient HBEs', even though it will need to be tested on many other cases. More importantly, as Flyvberg (2006) argues, a contribution to knowledge is not only acquired from generalization of the deductive approach of scientific research – knowledge acquired from a case study can also make a prominent contribution to knowledge.

Thus, the following Chapter (5) is a contextual chapter on HBEs in Kasongan, specifically a depiction of the post-earthquake situation, which is presented in order to gain a better portrait of different types of ceramics HBEs, including the relationship between different levels and types of ceramics HBEs. Also, several selected cases form part of the upcoming chapter.

Chapter 5

The Kasongan Context: The Growth of HBEs and Post-Disaster Recovery

Chapter 5
The Kasongan in Context: The Growth of HBEs and Post-Disaster Recovery

Chapter 5

The Kasongan in Context: The Growth of HBEs and Post-Disaster Recovery

5.1. Introduction

In order to answer the research question of how HBE households demonstrate resilience in post disaster recovery, this chapter assesses the importance of HBEs and their growth as the object of this study and post-disaster recovery in context. The chapter starts by describing the Kasongan area, particularly in relation to the post-recovery response in the post-earthquake situation; it also provides a description and analysis of the types of HBE.

Kasongan has become a brand name for pottery or ceramic products made in Old Kasongan and its surrounding areas. Ceramic production has been practised for centuries, and has influenced people from the area to produce it. This study focuses on the Kasongan area including not only Old Kasongan or the original area of Kasongan, but also its surrounding areas, as explained in section 5.2.2 on geographical context.

By providing a general context of the Kasongan area, particularly its history, geography, population and occupation, land use, tourism plan, and art and culture, this chapter provides the background context to the Kasongan area to facilitate a deeper understanding of the case study. This context will contextualise the analytical chapters 6, 7 and 8. A description of the growth and natural transformation of HBEs highlights the various types of HBEs, which contributes to their resilience, particularly in the relationship between different types of HBEs, as related to the social capital analysis in Chapter 7.

The other section gives examples of HBE profiles as high, middle and small or traditional HBEs which then connect in a mutual relationship to form social capital in order to deal with daily life problems related to the ceramic industry, and also affect their ability to cope with post-disaster situation. The last section focuses on the post-recovery responses which were led and facilitated by the government and involved multiple stakeholders. However this research argues that the Kasongan people are the main actors for resilience, although other stakeholders supported the initial phase of recovery and then the recovery process.

Therefore, this chapter sets out the background context needed to understand the recovery process of the area of study, particularly as related to the social connections between HBEs and the character of individuals.

5.2. Kasongan Context: The Background

5.2.1 History of the Kasongan Ceramic Industry

Kasongan has a long tradition as a village of ceramics production. Even though it was not clear when the Kasongan people started to produce ceramics, a strong historical background was important to trigger ceramic production in this area (Raharjo, 2009b). According to Raharjo (2009b), Kasongan was also influenced by Kyai Song, a guru and a follower of Pangeran (Prince) Diponegoro, who was a rebel leader in the Java War of 1825-1830 against Dutch colonialism. When Pangeran Diponegoro was arrested and sent to another island to be sentenced (Ricklefs in Raharjo (2009b), one of his followers, Kyai Song, ran to Kasongan village and stayed in the west part of the Bedog River and tried to rebel in silence. Kyai Song asked the local people to rebel in silence by not working as farmers. As farmers, they had to give the crop harvest to the Dutch. Kyai Song taught the residents to make ceramics, as a strategy of rebelling against the colonial government. By making the earthenware ceramics, they had no crop harvest to give.

Historically, many milestones have affected the development of ceramic HBEs (Raharjo, 2009b). In the 1930s, an artist named Jembuk made a significant change in the design of ceramics in Kasongan, as he introduced art into the design process. Another contributor to the development of ceramics in Kasongan was Larasati Soeliantoro Soelaiman, who was a leader of the floral community in Yogyakarta. She regularly invited guests in the 1980s, including international tourists, to have dinner at the nearby river and assist the local people in designing beautiful pots for flowers. Also, Sapto Hoedoyo, also an artist, introduced a detailed design for ceramics, and encouraged many staff and students at the Art Institute of Indonesia (ISI) in the 1980s.

The Kasongan people were able to adapt and survive due to ceramic production for long periods. Starting with kitchenware such as pans called *kuwali, pengaron, kendhil*, or traditional stoves called *anglo* produced decades even centuries ago, they then developed ceramic products for the tourist trade, even exporting some products. According to Raharjo (2009a: 5), Kasongan ceramics have been exported internationally since 1986. These new Kasongan ceramics combined old and new designs into a new aesthetic product and improved the function. A more artistic and aesthetic design that met market demand was developed after a long experimental period, which was both empirical and intuitive (Guntur in Raharjo, 2009a: 18). The first exporters were Yanto, and Subur, and the next generation of ceramic HBEs was developed by Timbul Raharjo. In summary, historically, the Kasongan area developed from small scale production to a more international scale over several decades.

5.2.2 Geography

Kasongan has become a brand name for ceramic products. The 'old' or original Kasongan is small area in the southern part of the Kasongan area, particularly in Kajen, Bangunjiwo Village, Kasihan District, Bantul Regency, and Yogyakarta Province. The Kasongan area includes the surrounding areas of Dusun Kajen, namely Tirto, Kalipucang, Gedongan, and Sembungan, but this study focuses on three areas, Kajen, Kalipucang and Tirto as these are the areas where ceramic HBEs started and most people in these areas rely on them.

Yogyakarta city is well known as the second tourist destination in Indonesia after Bali and the Kasongan area is located around 8 kilometres from the southern part of Yogyakarta. The Kasongan area has good roads and accessibility to public transportation via minibuses which stop at the main gate of Kasongan. From this main gate, 'ojeg,' informal motorcycle taxis, or 'becak,' a three-wheeled bicycle, are other forms of public transport which can be used by guests or tourists to reach the Kasongan area; walking is also an option. Kasongan shops are reachable as they are located alongside the Kasongan main road. Furthermore, according to Raharjo (2009b: 40), the main gate's design was based on the Palace of the Sultan of Yogyakarta, and the ornamental design of Borobudur Temple. With a height of 6m, container trucks can access the Kasongan area, to export ceramic to other countries.

5.2.3 Population

Most Kasongan people are Javanese, although originally only local people resided in this area; as the development of the area for ceramic producers became prominent, it attracted people from outside the area to live and work there, whether in ceramic HBEs or not. The total population of the Kasongan area is depicted in table 5.1, and the details of the occupation of the head of the household are depicted in table 5.2.

Table 5. 1 Population of Kasongan, May 2005

no	Dusun	Male	Female	Total
1	Kajen	654	557	1211
2	Kalipucang	485	512	997
3	Gedongan	680	658	1338
4	Tirto	593	452	1045
5	Sembungan	466	495	961
		2878	2674	5552

Source: Raharjo (2009b)

Kasongan changed from a subsistence economy with a traditional agriculture basis to a more modern industrial basis, albeit on a limited scale. The scale was limited as only a few of the Kasongan people used modern agricultural methods such as tractors, while others still maintained traditional agricultural practices. These include ploughing paddy field with traditional tools called a '*luku*' or a *'garu*,*'* which need cows to pull the equipment. In terms of

changing ceramic production technology, the same phenomenon has happened as only a few ceramic producers use modern technology in ceramic production, and almost all of them practise traditional ceramic production. Although several high profile ceramic HBE households export, the technique of ceramic production remains traditional, for example with the use of firewood rather than gas. This is because wood is cheaper, more familiar and easier to manage. However, although the manufacturing process is traditional, the transportation modes of some ceramic HBEs are modern, as container lorries are used to send goods worldwide.

The population of the Kasongan area is predominantly local people, but there are also a few newcomers, and both conduct activity related to ceramics. A number of ceramic HBE workers come from the Brebes District, West Java Province, to provide labour. The middle and high level profile ceramic HBEs usually need and hire 1-4 non-family member workers to mould the clay, but most of the workers are family members or neighbours. The small or traditional profile ceramic HBEs are operated by family members only. Because most of the process of ceramic making is by hand, particularly in shaping ceramics, these industries rely heavily on people in the production process, and even in the high level profile HBEs many workers are needed. The enterprises started by only needing family members and neighbours as workers, and then, with the development of Kasongan as a centre of ceramics production, workers started to come, particularly from the Brebes Regency, which is around 200km from the Kasongan area. Most of them come in groups of 10-20, who rent a house, often working for different ceramic HBE households. This phenomenon reached a peak between 1990-2000. However, most workers in the ceramic HBEs are still Kasongan family members and neighbours, as the non-local people are only needed for the moulding process of large, tall ceramic products.

Other newcomers coming to the Kasongan area are also entrepreneurs or the owners of various handicraft industries or showrooms arriving from other parts of Yogyakarta, or even from other parts of Indonesia. Having seen the success of the area as a tourist destination and that many tourists buy ceramic products, they arrive and build their own showrooms. So, some parts along the side of the Kasongan main road area are not used just for ceramic showrooms, but also for the showrooms of stone carving, bamboo souvenirs, and other handicrafts.

The development of Kasongan ceramics is significant, particularly from the perspective of employment provided by this activity. In 1983, around 65.59% of the population of Kasongan were ceramic entrepreneurs. However, this increased significantly as in 2005 the figure had reached 82.52%in Dukuh Kajen alone (Raharjo, 2009b). In a more detailed depiction of the occupation of the head of the household in the Kasongan area, as depicted in table 5.2 below, ceramic producers were concentrated in Kajen, the original or old Kasongan.

Table 5. 2 Occupation of the Head of the Household in Kasongan, 2005

	Area	Ceramic producers	Workers of ceramic enterprises	Army	Civil Servant	Others	Total
1	Kajen	**222**	**8**	13	22	4	269
2	Kalipucang	**52**	**122**	8	2	102	286
3	Gedongan	39	151	9	102	190	491
4	Tirto	**73**	**183**	2	3	47	308
5	Sembungan	12	62	9	20	177	280
	TOTAL	398	526	41	149	520	1634

Source: Raharjo (2009b: 74) *Bold added as the research area

5.2.4 Land Use

Land use in the Kasongan area is dominated by the settlement area. Almost all of this settlement area has ceramic HBEs, placed in backyards or on terraces. Some parts of the Kasongan area are farmland or paddy fields (figure 5.1).

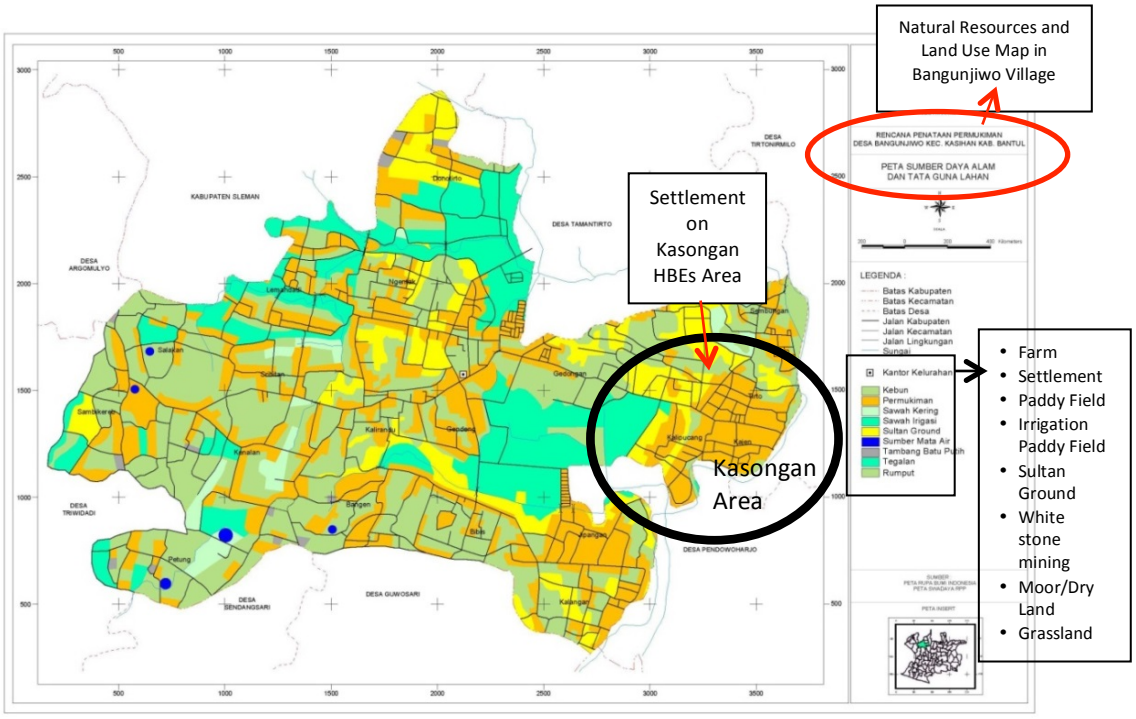

Figure 5. 1 Kasongan: Natural Resources and Land Use Map
Source: Bantul (2009)

Small or traditional ceramic HBEs tend to use clay or sand taken from the surrounding areas such as the backyard or nearby river. Although it seems problematic from an environmental perspective, the access to raw material is relatively easy (section 6.2). This type of ceramic HBE has a limited scale of industry, and thus needs only a small amount of raw material. All the raw materials are provided by the surrounding area.

5.2.5 Tourism Route Planning

Starting with ceramic making at home, the Kasongan area has now become an art village and tourism centre. This is recognized by the local government in the planning of the tourism centre in Kasongan and its surrounding areas. Tourism planning with Kasongan as a development centre for the surrounding areas demonstrates the recognition by local government of the importance of the area (figure 5.2). As the plan is based on a tourism and art centre, this is official recognition of the Kasongan area as a centre of creativity in art.

The Planning Development Board's (Bappeda) document entitled the Settlement Design Master Plan (figure 5.2) for Bangunjiwo village shows the development of a tourism route with Kasongan as the centre of growth. Its surrounding areas have for a long time produced stone carvings (Lemahdadi), leather puppets (Gendeng), and bamboo souvenirs (Jipangan), but the different centres were not connected. Therefore, this Tourism Route Plan document aims to make the surroundings recognisable like the ceramics of the Kasongan area. With this plan, the integration of the Kasongan areas with its neighbours will create an accessible tourism route to generate income.

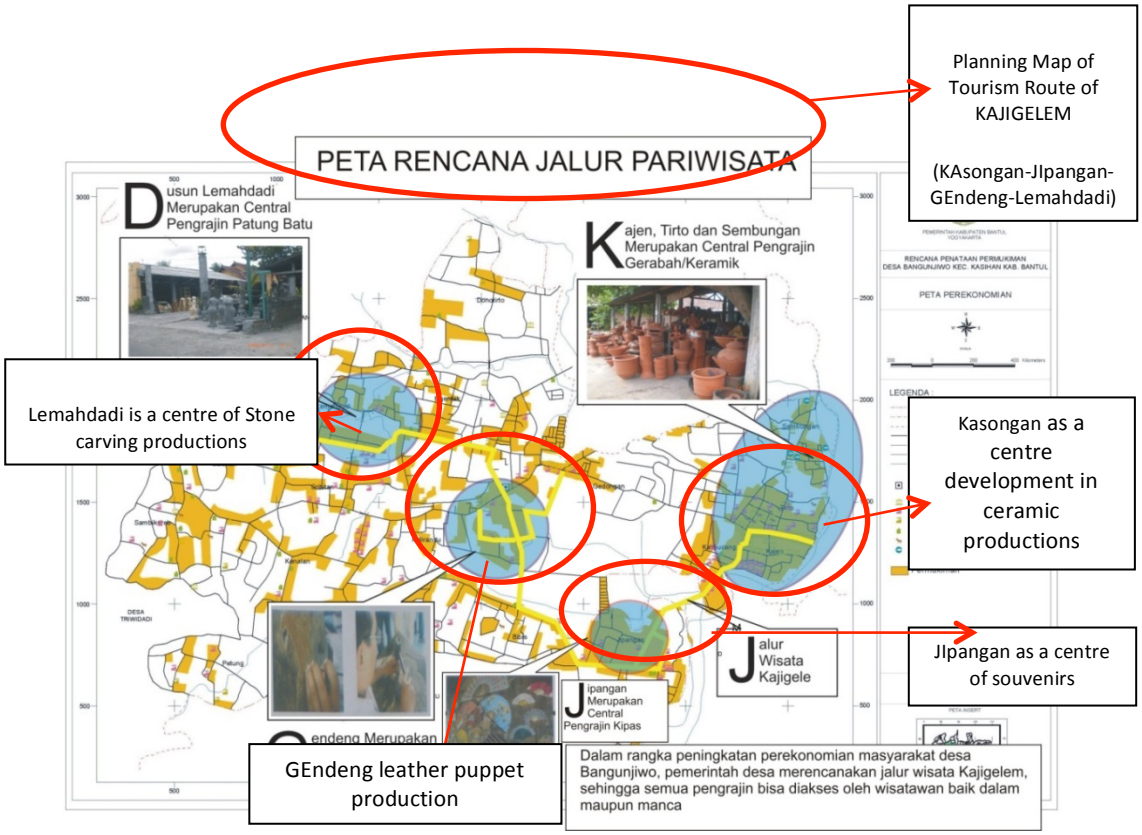

Figure 5. 2 Tourism Route Map with Kasongan as a Centre for the Surroundings Areas
Source: Bantul (2009)

5.2.6 Art and Culture

Activities in art are important to the context of this research as these activities are linked to how social-assets affect the recovery process in a post-disaster situation, particularly with creativity, adaptability and flexibility. This section explains art activities in the Kasongan area.

According to Raharjo (2009b), in general, Kasongan people produce ceramics or become '*pekundhi*' during the day, but also do art activity at night. The traditional arts are part of the Kasongan people, such as '*wayang kulit*' (shadow puppets), '*ketoprak'* (Javanese opera show), '*jathilan'* (kuda lumping show), '*gamelan*' (traditional music) or '*campursari'* (Javanese songs). As several artists live in the Kasongan area, art activities are regularly performed, for example for local television. There are weekly or occasional practices depending on the need, in preparation for performances by Kasongan people; this relates to creativity.

The Kasongan Festival was originated by the provincial government, particularly the Department of Industry, Trade, and Cooperatives, as part of a government programme to promote the ceramics of the Kasongan area. However, since Regional Autonomy Law[1] was applied in 2000 (Raharjo, 2009b), this event stopped due to financial constraints, and some authorities and tasks have been devolved at the local government level. Then, several years ago, on the initiative of local informal leaders, the Kasongan Art Festival was restarted for a month in 2011. The annual topic of this art festival is also sometimes designed to highlight a contemporary problem in the daily life of the Kasongan people, for example, in this year it was connected to environmental issues and the sustainability of the river which is a part of the area.

Figure 5.3: Art Festival in Kasongan, 2011
Source:
http://hajriansyah.wordpress.com/2013/05/25/festival-seni-bambu-kasongan-perayaan-dan-reflektivitas/,
http://www.antaranews.com/berita/348807/sensasi-naik-rakit-bambu-di-wisata-air-kasongan

[1] The Law of Regional Autonomy, 1999, and then its revised version of 2004, apply decentralization principles, devolving power from the central government to the local government.
[2] (This is based on an interview with the head of the village (kadus Nangsib), Section of Physical and

It started with the concern that the river seems to have been polluted by domestic waste, particularly plastic, and also by waste from the sugarcane industry (figure 5.3). This art festival is now an annual event and is led and performed by the Kasongan people to display their creativity. Furthermore, this event is also a tourist attraction for the area. In summary, both routine and occasional art activities in Kasongan demonstrate the creativity of the Kasongan people.

5.2.7 The Ceramic Industry Process

Ceramic production as a whole process, particularly in high profile ceramic HBEs, is depicted in figure 5.4. However, for traditional and middle level ceramic HBEs, some steps are not part of the process. Therefore, not all the ceramic HBEs do the whole process of ceramic production.

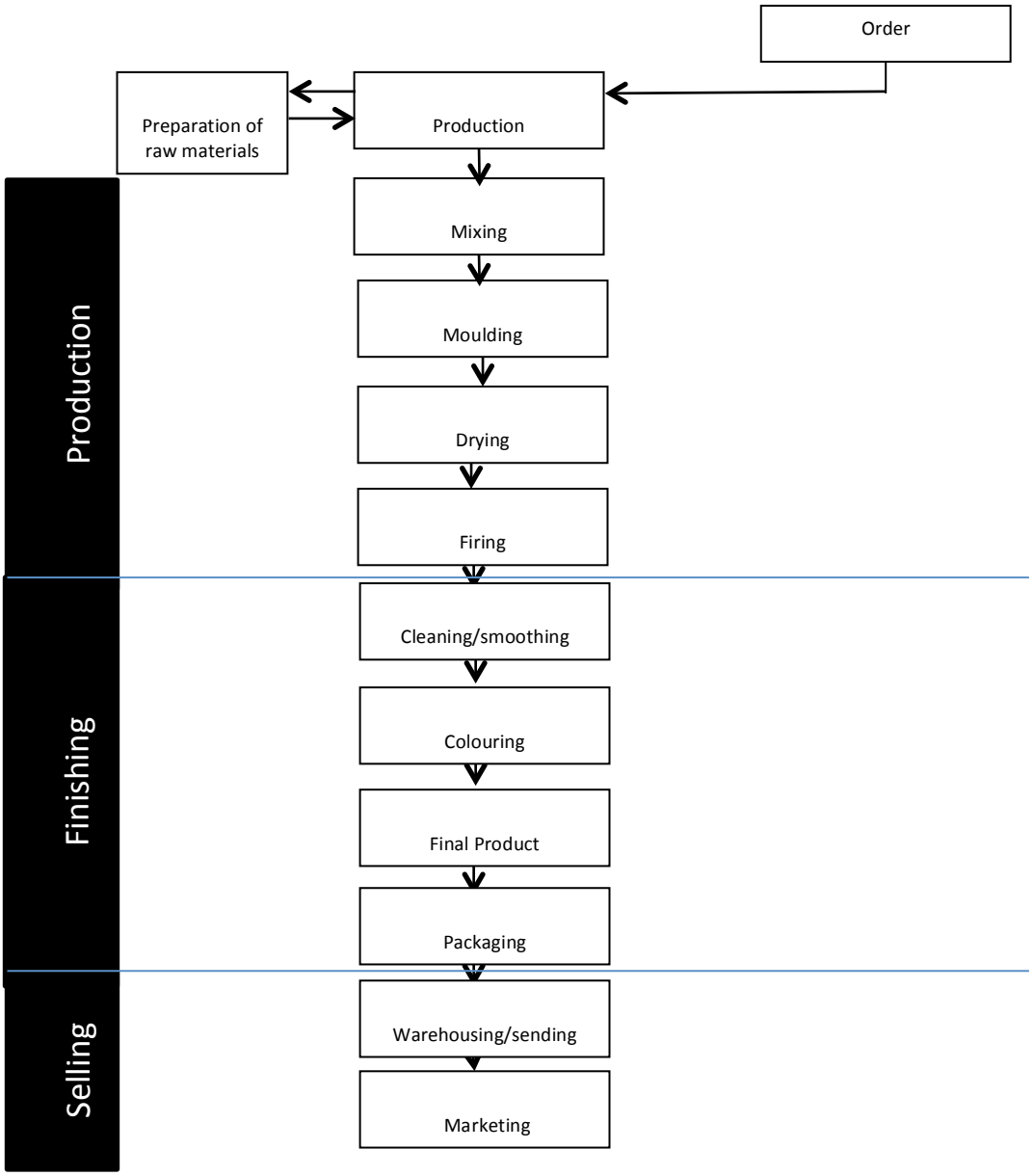

Figure 5.4. Steps in Ceramic Production
Source: Disperindagkop Kabupaten Bantul - The Agency of Industry (2009)

Part of this ceramic production is only the moulding process, not the firing or finishing steps. These steps are subcontracted to other ceramic HBEs with '*mentahan*' (un-fired raw ceramic) or *'abangan'* (fired ceramic product), without the finishing process. Some ceramic HBEs concentrate on selling ceramic products through their showrooms alongside the main road in Kasongan. Various types of HBEs and also interrelationship among them then analysed deeply in section 5.3.

5.3. The Growth of Ceramic HBEs: A Transformation

This section describes the natural growth or development of HBEs. It starts by categorizing the HBEs, describing their characteristics, and explaining the pattern of relationships between them. It then considers the growth of HBEs. This explains the emergence of higher level ceramic HBEs who operate on an international scale.

5.3.1. Categories of Ceramic Home-based Enterprises

Based on the fieldwork 2011, there are various categories of ceramic home-based enterprises emerging from the responses. The respondents can be differentiated based on the steps of ceramics production and the selling of the product at the end (shown above). These steps include the production of unfinished ceramics, to the finishing of ceramics, and the sale of these ceramics. Some HBEs focus on one of these steps, other HBEs operate in a combined way, completing more than one of the steps or, in some cases, completing them all.

The following information draws on figure 5.4 to reflect on this research's sample of 58 respondents to show how high, middle and small or traditional HBEs (section 2.1.1.3) operate.

Production activities (taken from figure 5.4) includes the mixing of clay, the moulding of the ceramic, and the drying and firing. Traditionally ceramics tend to be ceramic kitchenware such as stoves (anglo) and pans (kendhil, pengaron and roof tiles produced for a local market, usually by female potters encouraged into the activity by their parents (already operating in the business). However more recently, many of the ceramics have become more decorative pieces (vases, sculptures etc.), some targeting International markets. Most firing is completed traditionally using a wood-burning kiln. Some firing is completed using a gas-fired kiln., which burns hotter, but is more costly. Production activities can be completed by the HBE or they can be sub-contacted out; and some HBEs operate by completing sub-contracted work. Some HBEs produce original work, others produce work to order, designed by another enterprise.

Finishing activities include the painting or decorating of already fired ceramic products. Some HBEs are designing their own finishes, while others are completed prescribed finishes designed by others. Finishing can be completed by the original HBE or it can be sub-contracted out. Due to the skill involved in finishing some subcontracted HBEs are in high demand. Some HBEs are keeping up with international demands for particular finishes, others are focusing on a more local market. Some products, for example the ceramic produced for local markets, are not 'finished' at all- they are just fired and sold to the user.

Selling activities include the warehousing, display and marketing of the products. The marketing of the product ranges from marketing internationally to marketing very locally. Some HBEs are operating at a national/international level pre-ordering product to ship out in shipping containers, requiring the access of container lorries to be available to the locality. These and other HBEs are also selling primarily decorative ceramics through local sales rooms to tourists from Indonesia and beyond. They are either using sales room space belonging to themselves or they are using sale room space owned by another HBE to display and sell their product. Some are selling their ceramics from their bicycles, so do not need the same sales space others are relying on, and still others are producing a very local functional product to be sold very locally.

Combined production/selling activities. Some HBEs combine processes, completing the entire task of production and sale, while others specialise at producing or finishing, or sub-contract activities out to those who may have more specialist practical skills such as finishing, allowing the main HBE to focus on design and marketing. Whether HBEs offer a complete product or just part of the process does not in itself determine whether it is likely to be a high profile HBE or a small/traditional one.

It is evident from this description of ceramic production and selling processes to see that some of the HBEs have been more successful than others at expanding their enterprises, but all have remained connected to Kasongan, and maintain a strong link with the place (home) the HBE originated from, and the community from which it emerged. The majority of Kasongan's HBEs are small profile or traditional HBEs which have 1-4 workers including the owners who also are involved in ceramic production or distribution. Kasongan area also has a relatively larger HBEs based on the number of workers. That is Middle Profile of HBEs which have 5-19 workers includes the owner. Lastly, some of HBEs are High Profile HBEs as they have 20 or even more workers including the owners and family members in ceramic HBEs. High profile HBEs have more workers, as the production capacity is high and they also have some subcontractor HBEs. This is more fully portrayed in the next section.

5.3.2.Main Types and Characteristics of Ceramic HBEs in Kasongan

Kasongan area has three types of HBE which have different characteristics, namely small or traditional HBEs, medium HBEs and high profile HBEs (table 5.3).

Table 5.3 Types of HBE and their Characteristics

	Types	Main Characteristics	Sub-Types	Descriptions	Examples
1	Small or Traditional HBEs	• Family member workers(1-4 people) • Usually produce small, traditional or local ceramic products, purely for the traditional and local markets. • The ceramic production process usually in the house compound (terrace, kitchen or backyard/nearby house) • Economic Survival	As subcontractor to other HBEs	The ceramic products need the firing aor finishing process from another HBE	**mbak Wagilah,** B Tumilah* **mbak Wahini**
			Whole production process Have own showroom	The prepared to sell ceramic is sold by a family member at Yogyakarta's tourist destination	Bu Supari
			Whole production process Do not have own showroom (but sell through local/traditional buyer)	The seller buys the ceramic products to be sold in traditional markets	**mbah Temu****
			Mixed (Whole production process both have own showroom and do not have own showroom	The traditional ceramic products have a certain buyer come directly to her house and the other ceramic product in different shape is sold by Bu Sedep and her husband	Bu Sedep** Bu Marsinah **

	Types	Main Characteristics	Sub-Types	Descriptions	Examples
2	Middle profile of ceramic HBEs	• Family member and non-family member workers (5-19 people) • Usually produce relative bigger ceramic products both for local and international markets • In certain conditions, this HBE can subcontract part of the production process/chain to other HBEs • The workshop/ceramic production process and or showroom usually in the house compound (terrace, kitchen or backyard/nearby house) and or other plot for extension • Economic Security	Whole production process for Local market	The process production in the same HBE for local market	Pak Walijoko
			As subcontractor for other HBEs (for local and exported product)	The ceramic products need firing and or finishing process from other HBE for local market	mbak Ratiyem Pak Pur**
			Finishing for local market	This HBE buys the unfinished product to be sold for local market	mb Nur (Pak Ribut)*,
			Mixed (mainly whole production for local market and subcontractor for other HBEs for exported product)		**P Marwan, P Bumi**, P Priadi, Bu Sudilah,p Giyono
3	High Profile/Exported HBEs	• Family member and non-family member workers(20-more people) • Usually produce or sell relative bigger ceramics products • In certain conditions, this HBE can subcontract part of the production process/chain to other HBEs • Direct contact with overseas buyers • Export overseas through overseas buyer • Can be a coordinator for exports, by asking other HBEs to jointly fill the container • The ceramic production process /workshop is usually beside house and the gallery/showroom use terrace, and has utilized several plots of land for extension • Economic Growth	Mainly Whole production process		**Pak Subur**, Pak Yanto, **Pak Ponidi**, **Pak Sarjiman**
			Mainly finishing process		**Pak Timbul**

Note: * the HBE has increased position ** the HBE has decreased by the typology or the production number

5.3.3.Pattern of Relationships between Various HBE Typologies

The relationship between HBEs in Kasongan consists of both business and family relationship types (table 5.4. and figure 5.5). Further explanations of the types are as follows:

Business Relationship: the connection is usually between the exporter and supplier, or supplier to sub-contractor, and there is no family relationship between them, but they may be neighbours.

Family Relationship: the connection based on family relationships, they are usually lives nearby each other. The land is usually distributed through inheritance to the children. However, some of the family lives separately or quite far from the family, as they follow their husband/ wife to build their own home.

Table 5.4 Relationship between Ceramic HBEs in the Kasongan Area

	Relationship Type	Characteristics	Examples	
			Category	Notes
1	Business	Production chain for export	Main: P Timbul*	Supplier: P Marwan*, P Bumi*, P Wagimin, P Pur
		Production chain for local selling	P Wagimin/B Sudilah (raw ceramic supplier) 'from mentahan to abangan'	Who orders: Mbak Nur (finishing and selling)
			Mbak Wagilah *' Mentahan'	Who orders: Pak Priono (abangan/fired, finishing and selling)
			Bu Wahini *	Who orders: P Bumi*
		Join transportation to export	Leader (and could be a partner for others): P Subur* P Ponidi Yanto Keramik Bejo Keramik	Partners: P Sarjiman* P Jambul P Buang
2	Family	In proximity	Business connection	
			No business connection	Different plot for ceramic activities (entrance) (Exp. B Supari, mb Wagilah* and mbah Situm)
				Same plot for ceramic activities (entrance) (exp. P Giyono, B Ijem, B Mitro)
		Non-proximity (as worker)	Business connection	(Exp. Bu Tumilah and her daughter mb. Atun as her worker)

Note:* These people are described in the following parts

Some of HBE households work for the family ceramic HBE. Sometimes they works for they own family HBE, although it is not close to their house, such as the husband and son of Bu Sugiyem, who worked for Pak Walijo' ceramic one kilometre away from their house.

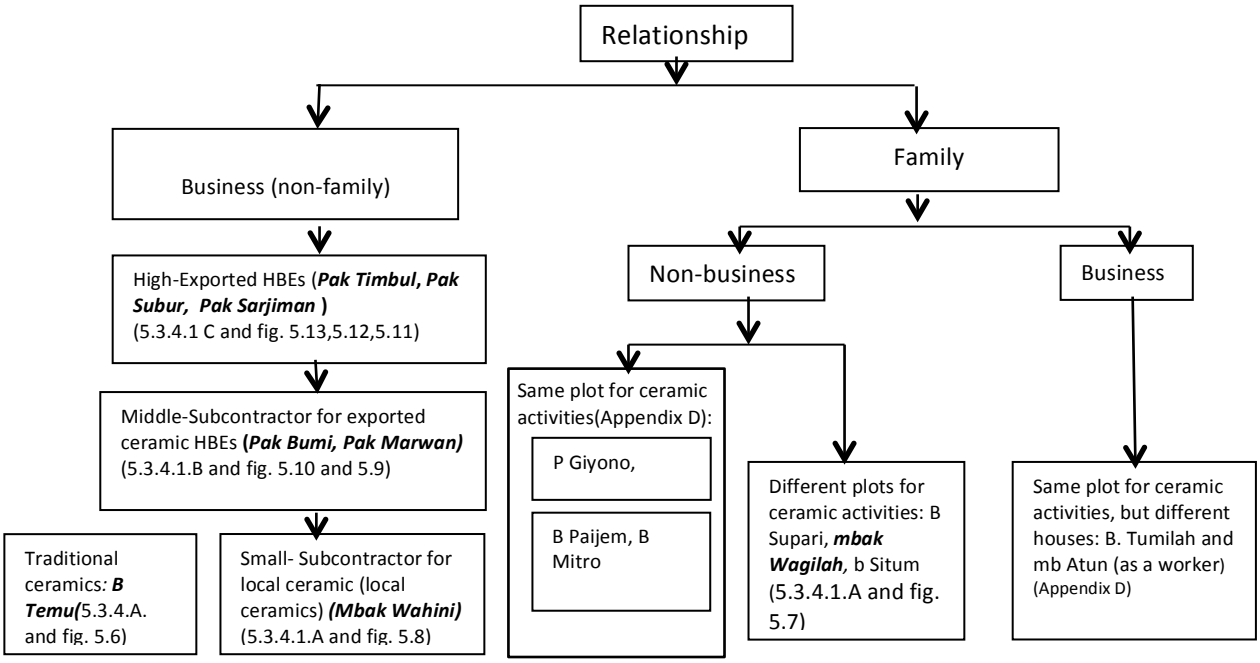

Figure 5.5. Pattern of Relationships between Different Types of HBEs

The types of relationships that commonly exist in Kasongan and their profiles (table 5.4) can be found in the appendix D.

Various types of HBE in Kasongan are formed as this ceramic activity has been a part of the way of life of the Kasongan people for centuries. By recognizing that the type of HBEs in Kasongan varies, it is necessary to explore the reasons for the diversity found within the HBEs's types. Before the analysis of the connections between various HBEs to form social capital, it is necessary to describe this natural growth of HBEs in Kasongan.

5.3.4. Diversity and Similarity of HBE

This part explains the diversity of HBEs and their growth process. By starting with a more detailed description of the diversity of each type, this part then explains the causes and implications of the transformation of HBEs.

5.3.4.1. Diversity between Various HBEs:

The traditional or small, middle and high profile HBEs are depicted from the cases as follows:

A. Traditional: Local Market

Mbah Temu (figure 5.6) produces for the local or traditional market, as earthenware kitchen utensils are usually used in villages. Mbah Temu also makes ceramics with her husband, and sends kitchen utensils out by bicycle to the surrounding traditional market; in this way, she has become a micro entrepreneur. The market of the HBE products is limited. Traditional cookers, the '*anglo*' and '*keren*', which already have a buyer are taken directly from her house by bicycle to be sold again in traditional markets.

Figure 5.6. The Traditional Ceramic HBEs of Mbah Temu: Subsistence Entrepreneur

Mbak Wagilah (figure 5.7) has also become a subcontractor for her neighbour and is paid piece rate for the number of items she produces. Mbak Wagilah also does the same as mbah Temu, but she makes wet or unfired ceramics for her neighbour, and her husband works for another HBE, and makes roof horns for other neighbours (see figure 5.7) . Both of them work for other HBEs in making ceramic products for the local market which means travelling across the city or beyond. The market for the HBE product was local/domestic, with items being transported traditionally by '*keser*' (a box with two wheels). 'Bawangan' of mbak Wagilah then firing it and

finishing it, and afterwards it was painted or decorated such as with sand. The ceramics were then sent to East Java by truck or pick-up. However, the same level market(local) was for '*wuwungan*' or roof horns, as it was transported to other cities, sometimes hundreds of kilometres from Kasongan.

A third case is that of Bu Wahini (Figure 5.8). She started her HBE at her home after she married. She used to just make '*mentahan*'(unfired) ceramics in the form of '*bawangan*' for umbrellas or artificial flower vases, but now she also makes a smaller vase after she received an order for this from her 2 other neighbours.

Figure 5.7. Traditional ceramic HBE of Mbak Wagilah

Another buyer is Pak Mulyono, the other neighbour, who buys Buddha statues in many forms. Pak Mulyono gives '*cetakan*' or moulds, and then Mbak Wahini helped by his husband makes the '*patung*' or statue. All the *mentahan* is fired in the buyer's ovens of Pak Pak Mulyono and Pak Bumi's parent. Bu Wahini needs to buy the raw material, shape and dry it, and then the *mentahan* ceramic needs to be dropped off at the buyer's premises.

Bu Wahini strongly relies on the orders of Pak Bumi's parent, Pak Bumi, Pak Mulyono and Pak Surat. However, Bu Wahini's buyers also need a supply of *'mentahan'* ceramics, and thus a mutual symbiosis happens. After the '*mentahan*' ceramic is fired, the buyer paints and finishes the ceramic, and markets it in East Java, or even exports it. Bu Wahini works at home, and her husmiddband works as a ceramic worker for Ponidi ceramics, but he also helps to decorate her ceramics.

Figure 5.8. Bu Wahini

From these three cases, the similarities are the scale and means of production, which is a person or couple working by hand, and the fact that they can only produce a small number of ceramics. They operate using manual labour to produce their products and transport them. This in turn limits the scale of production and delivery to a relatively local enterprise operating on a small scale, only producing the number of products the operator/subcontractor could produce. Their means of production enables them to survive economically, but not to flourish (see table 5.3 above).

B. Middle: Local and National Markets

This type operates nationally, and can be both self-employed as they are able to market their product themselves, but may also be employees of other HBEs or take sub-contracted work, particularly as a subcontractor for high profile ceramic HBEs, from the middle level of education. They are both a subcontractor for bigger scale HBEs and micro enterprises for the buyer from other cities (table 5.3).

Pak Marwan (figure 5.9) runs a middle profile ceramic HBE with the capacity to produce ceramics for his own buyers, who come from other cities to buy, for example, vases with bird decorations. He is also a subcontractor for higher profile HBEs, such as that of Pak Timbul Raharjo, for whom he provides red ceramic/unfinished ceramics. In this way, he is both a micro entrepreneur and a subcontractor, which is typical for a middle profile ceramic HBE. The space for the HBEs production and selling space is also usually more than one place, although house space is. Pak Marwan has two places for his ceramic HBEs, his home and a showroom at the front of his house, and a separate place for production and the kiln that is around 100m from his house. He also has two workers from other regencies, three neighbours, and his sons working for him.

Pak Marwan's HBE produces for the local market, but he is also a supplier for exported products. He has various buyers, but is flexible. The availability of a new design leads him to adapt to a new market. Previously, he has relied on the exported market, albeit directly, but he was also able to sell many ceramics (*'abangan'* ceramics) and the other HBEs or industries exported them. However, now he can also sell to the local market, after finishing the ceramics and taking them to market in his own pick up.

Figure 5.9. Pak Marwan

The second case which illustrates this type of HBE is that of Pak Bumi (Figure 5.10). He is a busy entrepreneur, who, with the help of his wife, produces ceramics nonstop. This type of HBE is complete, as almost all the activity takes place within the HBE. However, his workshop in the backyard is also used by a brother and parent, and his oven is also used by his sister to fire different forms of ceramic.

The relationship with other HBEs seems grounded in its location, which is near relatives and neighbours who contribute to the production process. Pak Bumi produces very large items, as ordered, for example, by Pak Timbul. For this reason, Pak Bumi also has his own workers from Brebes Regency; however, as his family lives next door, they also produce ceramics, and the space is used for both domestic purposes and ceramic production by the families, who produce different ceramics for different markets.

One of the suppliers for '*mentahan*' ceramics is Bu Wahini, whose house borders Pak Bumi's plot of land. As Pak Bumi has a big oven, he uses this to fire his ceramics in rotation with his parents, brothers and sisters at different times. However, it seems that all of the activities related to production, including transportation activities, never stop.

Figure 5.10. Pak Bumi

Pak Bumi began his HBE from an early age, as his parents also made traditional ceramic products. However, he also made large ceramic products and had become a sub-contractor and regular supplier to Pak Timbul. According to Pak Bumi's wife, the contract agreement describes and defines the price of a specific product. Since 2006, partly due to just after the earthquake, there has been a boom in orders, so a new contract which increases the price finally was signed in 2011 contracts. As with other suppliers, a penalty mechanism applies when a supplier is late in providing the '*abangan*' ceramics as ordered.

In summary, the middle profile HBEs are both subcontractors for higher level HBEs and also have their enterprises with their own markets. Their mode of operating makes them economically secure but they are not really growing (see table 5.3 above).

C. High Profile: National and International Markets

This type operates internationally, with employees and sub-contractors; they are highly educated, and work for self-actualisation not just for economic survival (see table 5.3 above). There are three high profile ceramic HBE examples: Pak Sarjiman, Pak Timbul Raharjo and Pak Subur. Pak Timbul is also the informal leader of the ceramic HBE households in the Kasongan area, whereas Pak Subur was the previous informal leader. All the high profile ceramic HBEs have the capacity to export their ceramics on various scales.

The high profile ceramic HBEs are typically successful businesses which started out by producing for the local or national markets. As the Kasongan area has become more developed and famous for ceramic products, they expanded to produce for the international market. Consequently, there are several such ceramic HBEs which followed and adapted to the market and became bigger and bigger, producing in more than one place, but maintaining some of their ceramic activities at home. The cases of Pak Ponidi, Pak Sariman, Pak Timbul Raharjo and Pak Subur show that HBEs can become exporters, still utilise their home for production purposes in part, without losing the function of their home as a shelter.

The first high profile HBE case is that of Pak Sarjiman. His successful story of ceramic HBEs in terms of the capability of selling ceramics internationally, was started initially from one location, and then developed to three separate locations. Pak Sarjiman exports together with Pak Subur (figure 5.12 bottom right), as indicated by my field notes from 2011:

> *One of the sons of Bu Pawirodimejo, who makes traditional kitchen pots, Pak Sarjiman, also has a ceramic HBE at the back of his house, beside his mother's house. Pak Sarjiman is successful, as he can export his product, for example a quarter of a container, using a trader company; the container has other goods such as furniture, and stone crafts to make the container full. Pak Sarjiman also has a two storey house; it shows his success in business. As he has a showroom, 'Restuning,' which is managed by his wife, bu Nita, and he also has local buyers, usually from outside Yogyakarta, mostly from Jakarta* (Field notes, 7 July, 2011).

Pak Sarjiman started his HBE with his parents, and his sisters were also ceramic makers. This HBE produces, finishes, and sell ceramic products. By having three locations or plots for the HBE (the first is his home and art shop, for finishing; the second location contain the oven, and the third location is for packaging), his business has grown significantly. Four members of the family are workers, and another ten non-family members also works in this HBE. He has unique designs and seems to be a favourite for the international market, as he also has a catalogue of products (figure 5.11)

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Figure 5.11. Pak Sarjiman

The second high profile HBE case is that of Pak Subur. Subur Ceramic had peak success in the 1990s and early 2000s. His products are large models and use a washed technique in a Mexican style (Raharjo, 2009a). In the 1980s, he could export goods when others could not because he had his own phone, when others did not

Subur Ceramic is one of several HBEs which can produce ceramics at all stages of production, including the preparation of raw materials, marketing, sales and distribution. Subur Ceramic prepare the clay with a certain formulae, shape it, fire it, finish it, and finally make contact with the buyer to export it. For marketing, this HBE has a website: www.suburceramic.com.

Figure 5.12. Pak Subur

The HBE is distributed over five locations. The showroom and office are in the front of the house, located on Kasongan Main Road, while the another place is used for mixing the raw materials. Mass production is done in Dusun Gedongan, to shape, fire, finish and pack the products. One other place that is used is called Maya ceramic, where Pak Subur's second daughter is responsible for filling the containers.

The third high profile HBE case is that of Pak Timbul. The growth of small HBEs becoming high profile ones can be seen in the example of Pak Timbul Raharjo, although others of this type had also transformed from lower level HBEs. In the beginning, Pak Timbul Raharjo's HBE was designed to be an additional source of income, as he has started to work as a lecturer at the Art Institute of Indonesia in Yogyakarta. Starting with two workers, they rented a showroom 3x6m^2, and then production increased to 20 containers a month at the peak of business in 2007. However, the global crisis, particularly the European crisis, led to a significant decrease in exports (Raharjo, 2009). A more complete depiction of his HBE's transformation is as follows:

> *The history of the house's development is that my parents built the house for my family without cement and the floor was of soil, without a terrace, and a leaky roof. Earlier in 1995, I lived in the half developed house. I used one room to make a new ceramic design, which then boomed several years after; many designs were created in that room, and finally the house was a home with ceramics under the bed, a living room and 15 workers at that time. In 1997, I was able to refurbish the house and put in cement and paint the walls, but it still functioned as a production house. At that time, I started to build a space for working and the house became a real house. In 2003, I made a warehouse of 6000m^2. Thus my work space became more spacious and the orders were numerous. In 2006 after the earthquake I continued to build the dream house on the same plot which previously was a warehouse. So, in early 2007 I had the dream home even though two art shops were damaged and the other one was destroyed in the earthquake of 2006. Even now, I am still living in the same house* (Email correspondence, 15 February 2014).

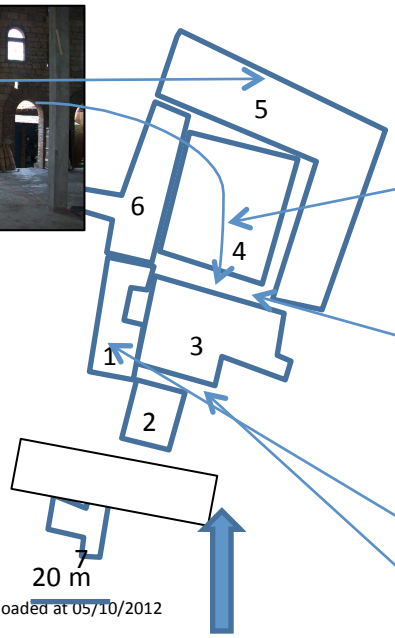
This quotation shows the story of the process of the development of the HBE of Pak Timbul Raharjo. Then, he had many places for art shops, but he still lived on the same premises with his ceramic production process, as his heritage land plot was wide enough to accommodate many activities (Figure 5.13).

5.3.4.2. Causes of Natural Growth

Based on this quotation above and also on the fact that the previous HBE of Pak Timbul Raharjo started with only two workers and used motorcycles to market the product, it is clear that HBEs are able to become bigger. This transformation occurred due to the external actors involved, globalization, and the capability of the Kasongan people to follow the market, including meeting international demands (Raharjo, 2009a). This is an example of a middle level HBE which transformed into a high profile ceramic HBE. Some traditional or small HBEs had become middle level HBE when the HBE continued and was developed by the son who had a higher level of education or better entrepreneurial skills.

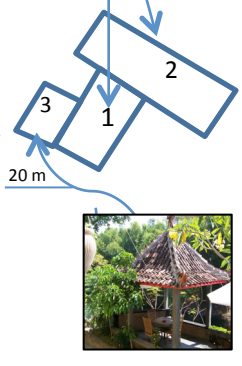
External actors, including government staff and people concerned with the development of Kasongan as a craft village, such as artists, have influenced the development of the area since the 1970s (Raharjo, 2009b: 73). The concept of an economic cluster has influenced the growth of Kasongan not only as an area of traditional ceramic production, but also, Kasongan growth has been supported in terms of better production and managerial guidance. One significant form of support is the establishment of the Technical Implementation Unit (UPT) in the Kasongan area, a unit in the Department of Industry and Trade which is designed to guide production so that they sell quality ceramics. It even facilitates the export of ceramics worldwide through training in how to make a good product, the management and marketing of ceramics, and support with exports, particularly in the initial export period (interview with the head of UPT, 2011).

Figure 5.13. Pak Timbul's HBE in the Kasongan Area



1. House
2. Office
3. Warehouse for finished/ packed product
4. Finishing process
5. Warehouse for unfinished product
6. Finishing process
7. Parking for motorcycles

Source: http://maps.google.co.uk/maps?hl=en&tab=wl downloaded at 05/10/2012



The first export pioneers of Kasongan ceramics were Pak Subur and Pak Ponidi in the 1980s and 1990s (Raharjo, 2009a), while Pak Timbul Raharjo and Pak Sarjiman were the second generation of exporters. Several artists, art staff and students have influenced the design of the ceramics, from traditional designs for functional ceramics to more aesthetic versions.

Globalization is another reason for the transformation of HBEs and the development of the Kasongan craft village (Raharjo, 2009a). Thus, some successful HBEs which previously had no capacity to export were able to follow the demands of international buyers, international tourists or other middlemen who came to the village and even buy up to 40 containers per month in the peak era of Kasongan ceramics in the 2000s (Raharjo, 2009a).

> *…[..]..there has been in recent years a quickening of globalization, a new stretching of social relations over space, but that what is also at issue is a change in the nature and direction of those relations…*(Massey, 1994: 166)

The entrepreneurship of the Kasongan people, combined with their creativity, skills, and better education level, has contributed to the transformation. The skills and capabilities of the Kasongan people in making ceramics is well-known. They can produce ceramics on demand for both functional and aesthetic uses (Raharjo, 2009a). They are capable of following the market, including the international market which needs both of good design and management, to keep the orders coming in. This led to the transformation, particularly of middle profile HBEs becoming high profile ones, and small HBEs becoming middle profile ones. This is particularly affected by the better educational level of the descendants. The creativity of the Kasongan people in making new designs has developed the Kasongan area, as they can follow markets and designs by certain artists can affect or shape the market (Tyas, 2014).

5.3.4.3. The Growth of HBEs from Small to Bigger Scale

Previously, HBEs had traditionally been ceramic producers for generations, but this changed after the 1970-80s. The transformation of HBEs from small scale to larger scale markets led to new classifications based on a certain structure: traditional or small, medium, and high profile HBEs. The implications of this structure of HBEs can thus be viewed from two sides: the connections between the various types and the different motivation of HBE owners based on types.

Firstly, as Pearson (2004) suggests, HBEs can be categorized as subcontractors or micro entrepreneurs. Small HBEs can be subcontractors or workers for other types of HBE, such as middle profile HBEs which shape clay and send unfired ceramics such as Mbak Wagilah case. However, small HBEs, particularly those that make traditional kitchen utensils, are micro entrepreneurs as they have to market the ceramics by themselves, or they make their own decisions about the ceramics they want to produce and market by themselves (Mbah Temu). Middle profile HBEs like Pak Marwan can be both subcontractors for upper level HBEs or micro entrepreneurs with their own buyers. Higher level HBEs are entrepreneurs as they have the capacity to market and have direct contact with buyers; however, they also have the possibility

of cooperating with each other, such as sharing the export of ceramic products in the same container.

Furthermore, the second implication of the establishment of various levels of ceramic HBEs is the motivation of the ceramic producers. Maslow's Pyramid of Human Needs has at the top level the need for self-actualization. The base of the pyramid, which is the biggest portion, reflects the basic physical need of human beings.

By considering the Maslow diagram, the motivation at the lower level of HBEs is to make ceramics for subsistence and economic survival, while for the higher level HBEs this need is more about self-actualization. This progression from economic survival to self-actualization is illustrated as follows:

> *I work with the heart and the mind, I always think about future possibilities and a better livelihood…[…]…. My main motivation in social activities is self-satisfaction if we can do for neighbours. Whatever I do, I have a thought that 'good action are always gaining the best', 'not to hurt other people insh'allah (will) save'* (Email correspondence, 15 February 2014)

This quotation reflects that needs move beyond subsistence, as it also depicts a willingness to share for self-satisfaction.

Table 5.5. Types of HBE based on Economic Dimensions

	Traditional or Small Profile HBEs			**Middle Profile HBEs**		**High Profile HBEs**			
	M Wahini	M. Temu	M. Wagilah	P Marwan	P Bumi	P. Sarjiman	P. Ponidi	P. Timbul Raharjo	P. Subur
Type of Working:									
Sub-contractor	x		x	x	x				
Own-account working		x		x	x	x	x	x	x
Market:									
Local	x	x	x	x	x				
National				x	x	x	x	x	x
International						x	x	x	x
Economic /Business Development Growth:									
Economic Survival	x	x	x						
Economic Security				x	x		x		x
Economic Growth						x		x	

Table 5.5 shows a sample of the types of HBE based on economic dimensions. That is each type has different characters based on type of working, market, and development growth. These confirms what Pearson (2004) has argued about the existence of export enterprises. The explanation of each type of profile can be found in section 5.3.4.1.

5.3.4.4. Similarity: Place Attachment

Although differences appear between the types, HBEs are similar in the 'home' concept. By having an emotional bonding with the place where they live, both for shelter and income generation 'home' is the best term rather than merely 'house', whatever the scale of the economic activity they do.

The emotional bonding with the place, not the space, known as place attachment, covers the family or household level to community level. Therefore, without moving from the beginning plot when they started the HBEs, the house indeed has improved as the income also increases.

On the same notion, place attachment can be effectively analysed in the attachment to the house, neighbourhood and city (Hidalgo and Ndez, 2001), whereas this study focuses on the household and neighbourhood level. Whether traditional or small scale ceramic HBEs use only one location for their HBE activity in the same place as the house, or middle and higher profile ceramic HBEs have several locations for their economic activities, all of them use part of a house or plot for economic activity such as a showroom, an office, or workshop.

Traditional small level ceramic HBEs have no choice in the place where their economic activities take place: it can only be in their house. The middle level ceramic HBEs can expand their economic activity to other parts, as the economic activity requires more space, although the main ceramic activity occurs in their house. The same is true of high profile ceramic HBEs, even though they may have many plots for ceramic industry-related activities, they maintain the house and part of their economic activity remains there. A sense of emotional bonding to the living place leads people to stay in the same place. The high profile HBE owner, Pak Timbul Raharjo, still lives in the same plot in which he began his ceramic HBE. His explanation refers to the fact that he had a large plot of inherited land:

> *...[..].yes, I am living on the same plot of land as before, and I am a local person of Kasongan, with a house in a plot of nearly one hectare. Thus, it makes it easier to manage the system of my enterprises if I live on the same plot. The journey of my enterprises until the success now is like a rotating wheel sometimes on the top but sometimes on the bottom of the wheel. Thus, I am also willing to develop together with the people surrounding me. Living in a house on the same plot as I have my enterprise has some advantages:*
> *a. I can control my enterprise ….*
> *b. I am able to take care of my children when I work at home*
> *c. I can have a close relationship with buyers who come to the house, and with my workers*
> *d. The plot of land is wide and can accommodate the work*
>
> *After the refurbishment, the office at home handled only the production, as administration was moved to the art shop near the river, particularly the financial, export and marketing sides* (Email correspondence, 15 February 2014).

For Pak Timbul Raharjo, even though the scale of his HBE had become bigger, he felt that it was important to have economic activities on his plot, as these facts showed how convenient

and comfortable it was for him. At the level of the community, he believes that only his people can do certain jobs in his ceramic HBE. He believes that only Kasongan people can perform good quality control of the ceramic products from the subcontractor, by listening to the sound of ceramic when it is clinked (interview with Nugraha, 2011). His community sentiment indicates that in this respect they were better than non-Kasongan people.

Strong attachment to birth place in Javanese culture is confirmed by an anthropologist, Koentjaraningrat, in Lavigne *et al.* (2008).The belief in '*spirit cults, ancestor worship, spirit healing and shamanistic forms ('dukunisme'), and mythical traditions are widespread and enjoy much popular support, especially in rural areas'* (Triyoga, Schlehe, Dove, in Lavigne *et al.* (2008: 280). Even though Islamic beliefs have largely replaced earlier cultures, the complexity of syncretic spirituality or the fusion of differing systems of belief, as in philosophy or religion, especially when success is partial or the result is heterogeneous still exists in the daily life of Javanese people. While they are Moslem, they also still believe in Javanese spirituality. They believe in staying in the same place or house, even when their ceramic activities expanded, and they keep their house and do not move to another place as part of their local beliefs, in particular to maintain their 'luck' in business. Another rational reason is also about having adequate space for part or all of their economic activity on the same plot (interview with Pak Timbul Raharjo).

In conclusion, place attachment covers both the household, and community or neighbourhood levels, which happens in the Kasongan area as they maintain and expand their HBEs.

5.4. Post-Disaster Recovery Responses

In 2006, Kasongan suffered a terrible earthquake and the impacts. The next section briefly describes this event and the post-disaster recovery response in the Kasongan area. It is important to depict the post-disaster situation to understand the context which reveals the resilience of HBEs in the Kasongan area. However, even though the focus is on the people of Kasongan and their relationships with each other, it is important to understand that the Kasongan people were also supported by other people. In order to demonstrate the context of the post-recovery response, the first part provides a description of the prone part of the Kasongan area. Secondly, the recovery in Kasongan was relatively rapid compared with other areas facing the same situation. The next section reviews the relatively rapid recovery time evident from fieldwork notes and questionnaire responses The final part examines the government's role in the community involvement in the post-recovery policy and programmes.

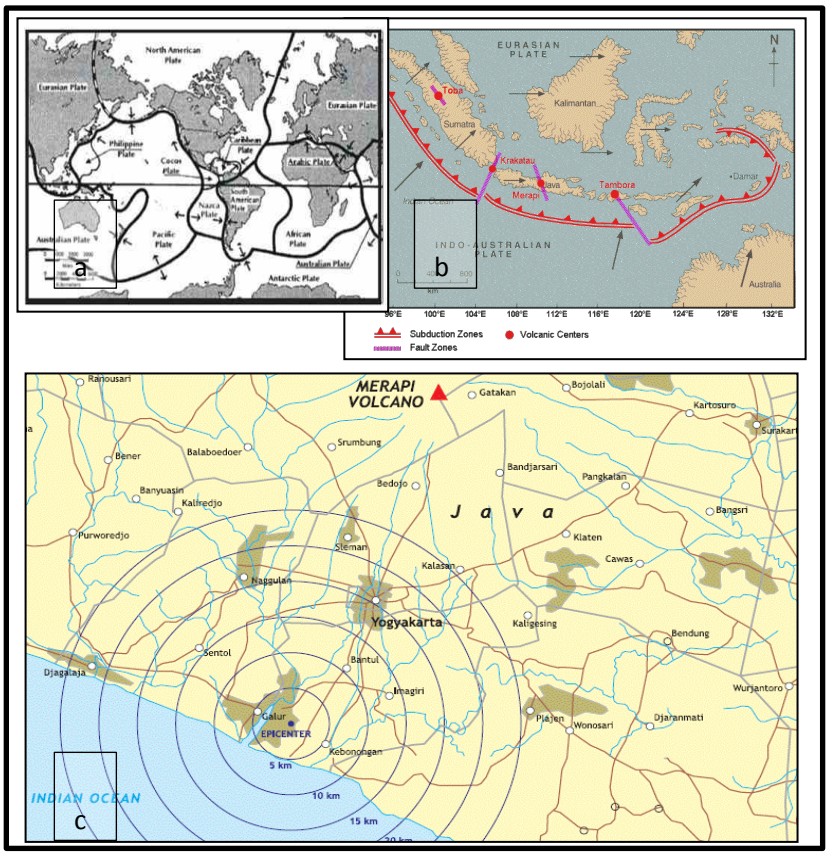
5.4.1. Location in an Earthquake Prone Area

Indonesia has many disaster-prone areas, as the country is located near subduction and fault zones, and there are also many active volcanoes. The Kasongan area is a part of the Bantul Regency, Yogyakarta Province, and is one of the areas worst affected by the earthquake that occurred in Yogyakarta in June 2006 (figure 5.14).

5.4.2. Recovery Time in Kasongan: Rapid Recovery

Recovery in the Kasongan area has been rapid. The questionnaires administered to 58 people in all types of HBE (section 4.3.1) revealed that the recovery period to restarting the ceramic HBE was between under a month to one year.

The recovery time for ceramic HBE households after earthquake the in May 2006 was varied, but it was rapid. The original questionnaire/interview sample was not statistically representative, but of those 58 respondents filling out this questionnaire/interview, several ceramic HBE households recovered very rapidly in terms of when the business restarted. 14% of those interviewed were able to restart the enterprise in less than a month after the earthquake, by starting to mould the ceramic in tents or a non-permanent house. The same percentage (14%) recovered in 7-12 months, which means that they restarted making ceramics in their house when the permanent house had been built. The rest of the HBEs, in total 60% of the respondents, restarted their ceramic activity after six months. Within the group which had a recovery over a period of 7-12 months, some of the HBEs in this group received finance for their household needs by working at other HBEs that had restarted earlier, so they did not restart their own HBE at their premises or properties. This willingness to help other ceramic HBEs to work before their own house had been repaired meant they could restart their own HBE and represents their good spirit and positive mentality to survive and continue their life.



a) Tectonic plate of the world, b) Indonesia and its tectonic plates, c) case of study location and the epicentre of earthquake in 2006

Figure 5.14. Disaster-Prone Area in the Case Study Location

Source: Multiple sources

In summary, the recovery time was rapid as from the statistically unrepresentative questionnaire sample of 58 selected respondents, 24% restarted within one month and around 86 % of them had fully recovered in a year. Compared with many other cases of earthquake recovery around the World, the recovery of Kasongan HBEs after the earthquake was relatively quick. Typically, the recovery process after the initial earthquake event requires at least six months in terms of schools returning, businesses re-opening (Chamlee-Wright, 2010: 41), or even five years for full recovery according to the idea of people and businesses returning to the area (Aldrich, 2012: 6).

5.4.3. The Recognition of Community Involvement

As this research focuses on the role of social assets in a post-disaster situation, the community group is part of the social aspect of the recovery process. Rather than focusing on government programmes, this research indicates that the recovery policy and programme has recognized community involvement.

5.4.3.1. Policy in Kasongan's Post-Disaster Situation: 3 Phases

In Bantul Regency, where the Kasongan area is located, there were three phases to the policy of recovery response: the emergency and recovery phase, the rehabilitation and reconstruction phase, and the restoration phase. Different goals and implementing agents or stakeholders were involved at these various stages (figure 5.15). The emergency and recovery phase was designed to save lives, and involved the implementing agents not only from society and rescue teams, but also volunteers.

While the rehabilitation and reconstruction phase focused on the recovery of minimal service standards, the restoration phase was designed to reconstruct the entire system in the longer term. Part of the programme related to housing and thus also ceramic HBEs as the houses were largely where ceramic production occurs; this research therefore focuses on the first and second phases. All the stages recognize that the community has to be active in order to successfully respond post-disaster.

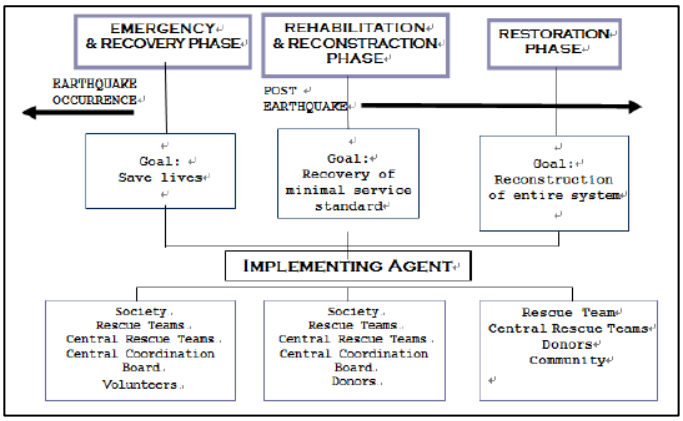


Figure 5.15. Earthquake Response Phase in Bantul Regency
Source: Yusdayati in International Recovery Platform (2009:91)

5.4.3.2. Reconstruction Process of Housing

The house is important for HBEs households, so house reconstruction was crucial. To implement the policy of recovery response, housing reconstruction had several phases: emergency, transitional, and rehabilitation.

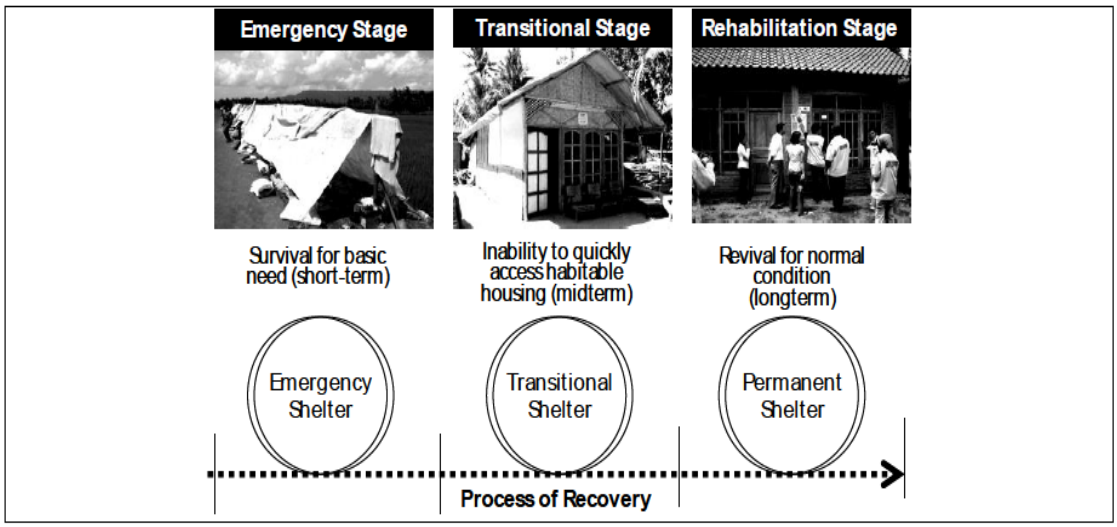


Figure 5.16. Metamorphosis of Shelter Provisions during the Disaster Recovery Process
Source: Ikaputra in Gadjah Mada University, 2009

According to Ikaputra (interview 2011), an expert on post-disaster research, the recovery stages in Yogyakarta and Bantul Regency post-disaster were as depicted in figure 5.9, so the emergency stage lasted for two to three months, the transitional (T)-shelter was a minimum of two months, and then in September 2006 (three months after the earthquake) HBE households started to rebuild permanent houses with a grant of 15 million rupiahs from the government in conjunction with *gotong royong*, which is a mutual help mechanism in community groups.

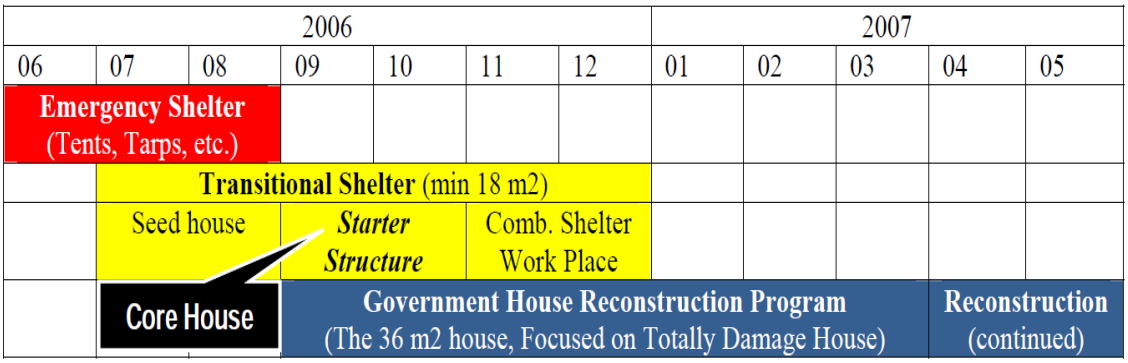


Figure 5.17. The Stages of House Reconstruction
Source: Ikaputra (2008:12)

In the emergency stage, one shared tent for several households was created in a safe place such as a football field, or gangway, away from collapsed buildings. Then, in the transitional stage, triplex and asbestos roofs were given to households, as the main building materials to build temporary housing. Finally, in relation to developing a permanent house, stronger building materials were used such as brick, cement and steel. All the stages were completed in one year after the disaster. Several NGOs were involved in the provision of the triplex or asbestos roof, but the government also provided a grant of 15 million rupiahs (equivalent to 760 pound sterling) per household to support household reconstructions, so they were able to buy cement or steel frames.

In brief, permanent housing reconstruction in Kasongan needed only one year after the disaster. Even before the end of this period, some HBEs had restarted their ceramic making activities in their tents or transitional shelters (see figure 5.15). This is a symptom or sign of the resilience of ceramic HBEs in the Kasongan area. From the perspective of the process of reconstruction, funding was also an important part of the programme, as discussed in the next part.

5.4.3.3. Government Funding for Households

The funding of the reconstruction of housing was financed through grants given by the central government to help households to rebuild their houses. However, as the grants were not able to cover all the costs, some building materials such as undamaged bricks, roofs, doors or windows were reused to rebuild a new house. In doing so, the grants were used to purchase other building materials such as cement and steel to achieve a stronger building and therefore meet minimum building standards. In some cases, the grant was used to pay the wages of people who helped to rebuild the houses. Even with mutual help, '*gotong-royong'*, the helpers also receive wages to compensate for the time spent rebuilding the house. Based on an interview with the Chief of the Planning Board Agency in 2011:

> *'The implementation of the Minimum Building Standard is guided by facilitators in Housing Recovery Project to practise safe and strong building. As a limited budget, the funds of Rp 15 million are prioritized for the strong frame, and the other materials such as bricks, roofs and unstructured materials are recycled from the building materials left from the earthquake.'*

Therefore, funds of Rp 15 million per household were distributed to the victims. In this way, the money was used to achieve higher building standards than had previously been achieved. In doing so, funding was used not just to recover but also to prepare for the effects of a future earthquake event.

Post-disaster management was organized by the government. The grant to reconstruct houses was distributed directly to communities through community groups (*Pokmas/KMSP*) (figure 5.10). Both the Ministry of Finance and the Ministry of Public Work distributed grants from central government to provincial government, and then to local government, a maximum of 15

million rupiahs for each damaged household. Through a channeling bank, the funds were distributed to community groups *(Pokmas/KSMP*) by the group leaders. With the support of a facilitator, the grant was organized by the community group itself. Therefore, according to the Head of the Infrastructure section of Bantul Regency Planning Board, it reduced the burden on local government caused by development, and it also relied heavily on the community group to manage the grant for their group. However, the role of central government, as well as the provincial and local governments and community group itself, were also important.

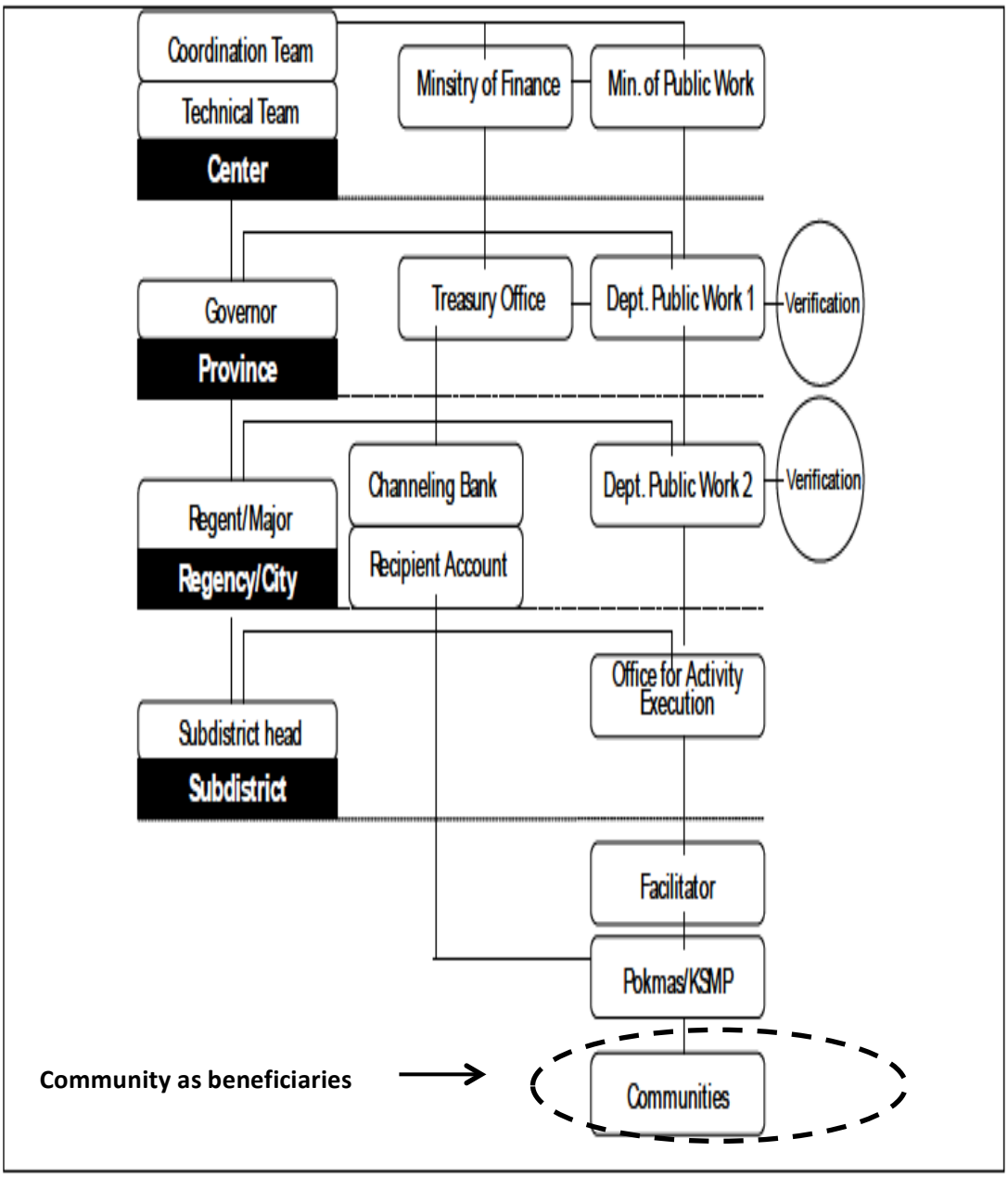


Figure 5.18. Interrelationships between Institutions Involved in the Disbursement of Direct Housing Assistance

Source: TTN, 2007 in in Gadjah Mada University, 2009. Dash line added

5.4.3.4. Multi-stakeholders' Forum in the Post-Disaster Response Coordination

In addition to the reconstruction and funding processes, the importance of the community in the success of post-recovery responses and programme must also be acknowledged. Multi-levels of government and multi-stakeholders were coordinated by the government, who then focused on the community and beneficiaries (figure 5.20). A forum was started at the provincial government level, connected to the local and district government levels. The forum seemed to be successful at coordinating and managing the post-earthquake situation from the level of Yogyakarta province, to the regency, district, and village, and finally to the community self-help group, which consisted of several households. More importantly, other stakeholders were also involved, such as universities, NGOs and professionals.

By design, the importance of the local community in the management and coordination of post-recovery responses was practised in Yogyakarta and Central Java Province; the description of the implementation in the Kasongan area is depicted in the next section.

5.4.3.5. Stakeholders in Reconstruction

The stakeholders in Yogyakarta's reconstruction were diverse. Based on the Report of the National Technical Team of Yogyakarta and Central Java's Rehabilitation and Reconstruction Programme 2009, in the Kasihan sub-district, in which the Kasongan area is placed, one of the donors in the early recovery phase was ADRA (Adventist Development and Rehabilitation Agency).

ADRA gave temporary shelter using zinc roofs and triplex for each family. Other donations included blankets, sleeping mats, and clothing. Food donations were also made in abundance to the Kasongan residents. The International Organization for Migration (IOM), the United Nations Development Programme (UNDP), the International Federation of the Red Cross and the Red Crescent Societies (IFRC), Local IFRC/ Palang Merah Indonesia (PMI) and many others contributed to the early stages of recovery. For shelter and camp management, the stakeholders were IFRC PMI, IOM, the Japan International Cooperation Agency (JICA), Jesuit Relief Services (JRS), the Oxford Committee for Famine Relief (OXFAM) and many others.

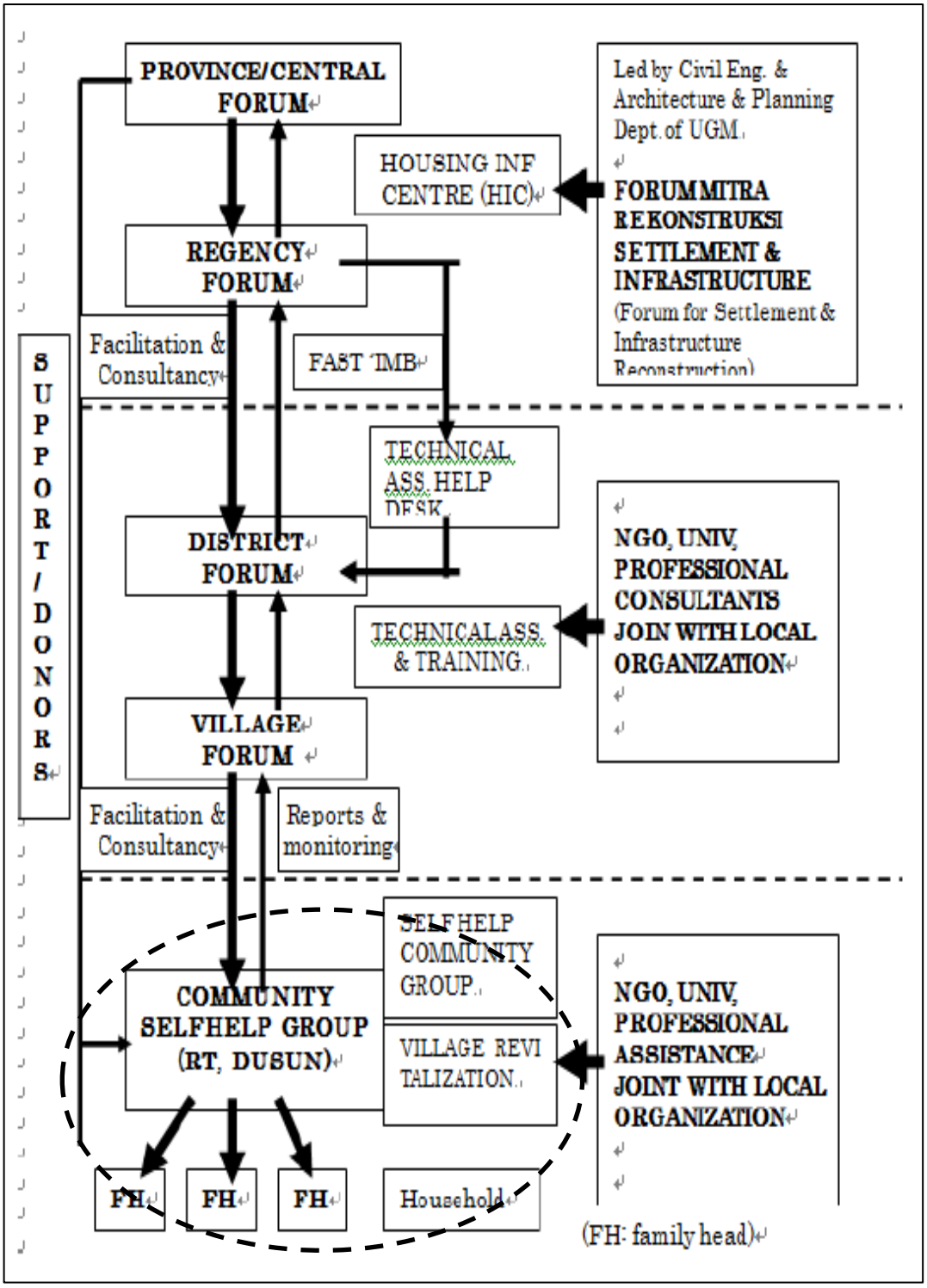


Figure 5. 19. Working Organization and Handling Concept Post-Earthquake
Source: Yusdayati in Gadjah Mada University, 2009:95, Dash line added

There were various local and international NGOs, and universities involved in Kasongan's reconstruction[2]. Such a coordination mechanism was applied to organize many NGOS and donors coming to Bantul Regency. In the sub-district of Kasihan, in which the Kasongan area is placed, many donors supported the recovery from the early recovery or emergency response, and many other donors also supported sectors including shelter and camp management. However, not all of the donors operated in the Kasongan area. On the same notion, based on the interview with the head of infrastructure development of the Planning Board in Bantul Regency, such a coordination mechanism was used to organize many NGOS and donors coming to Bantul Regency. The local government wanted to ensure that the support was distributed evenly and not based on the need of one single area.

According to MacRae and Hodgkin (2011), there was some conflict between local and international NGOs in Bantul and Yogyakarta. There was some antagonism from local NGO activists to International NGOs, who believed that the latter 'aided by force,' and gave bamboo or '*gedeg,*' a bamboo wall/panel, rather than cement, or bricks for permanent buildings and were unable to meet local needs. The antagonism of local NGOs to international NGOs was also reflected in their critique of why English was used for discussions, and meetings were held in hotels rather than government offices. They also felt left out of INGO work, and disputed whether local needs were being facilitated and met by these INGOs. It seems that some of the local agencies felt national pride and commitment were more important than professionalism and good management. Therefore, according to MacRae et al. (2011), this led to the reluctance of some INGOs to hire and involve local agencies. They also recognized the lack of involvement of the affected communities. In summary, although some conflict was part of the post-disaster recovery process, it managed to be effective.

5.4.3.6. Government Role: Funding and Their Recognition of Local Tradition

This research finds that the government recognises the importance of local tradition in the context of community participation in the post-disaster recovery programme. In relation to the key success of the fast reconstruction of the post-disaster situation and identifying who was responsible for achieving this, the Head of the Section of Infrastructure on the Local Planning Board, who administers the authorities in the Regency, said in an interview in 2011:

> *" I think we cannot separate the role of authorities or community…local community also has spirit in 'gotong-royong'/mutual help but without any coordination of authorities it cannot work well –in relation to fast recovery. It means that the community can be seen as a vehicle and the government as the driver….So a vehicle without a driver cannot move, and a driver without a vehicle also cannot reach the destination…even though the 'gotong-royong' culture is still highly strong in Javanese culture… it doesn't mean that non-Javanese people do*

[2] (This is based on an interview with the head of the village (kadus Nangsib), Section of Physical and Infrastructure Section of Local Development Planning Board (fispra bapeda) and documentation of a Map of the Involved Stakeholders).

> *not have the 'gotong-royong' spirit…so the government has facilitated the culture with a programme.*
>
> *With the programme, households can have funding of 15 million rupiahs, which is a small amount of money…if they only relied on that fund, only the foundations of the house would be built…so this is an opportunity already noticed by the authority for the culture of gotong-royong to be one of the solutions. If the reconstruction were subcontracted to a developer, the funds would not be enough…* (Interview, The Head of the Section of Infrastructure on the Local Planning Board, 2011)

The government acknowledged the role of community facilitation in the house reconstruction process by means of the local culture of 'gotong-royong' or mutual help. By design, community participation is accommodated through the housing recovery programme which gives grants to households. However, as well as funding assistance, one member of the household, the head of the household, was required to be involved in the reconstruction programme, not only for his own house reconstruction but also for his group or neighbourhood's house. Also, as quoted in field notes about the interview of government staff:

> *He explains the recovery in the post-disaster era, and he said of the coordination function of government that it could work successfully due to the local culture supporting recovery, particularly 'gotong-royong'/mutual help and 'sambatan'/(mutual help in building a house) in which the heads of the household work in small groups (10-15 heads of household) together to build a house, one by one* (Field note, 1 Jul 2011).

Based on the interview, it is clear that the authority recognises the local culture of self-help and cooperation; therefore, the local community was involved in the post-disaster housing recovery. This confirms what has been argued by Lizarralde *et al.* (2009); Davis(1978); Lizarralde (2009) and Davidson *et al.* (2007) that community participation is vital in post-disaster reconstruction

The recognition of the role of community which has been facilitated into the form of a government programme does not mean that government places all the responsibilities onto the community and solely relies on them. With design and assistance to the community, this confirms what Lizarralde *et al.,* (2009) suggested that the success of post-disaster reconstruction does not depend solely on community participation, but instead is complemented by organisational design and the coordination of different participants. Furthermore, they suggested that community participation can be implemented in certain parts of the whole process of reconstruction itself, for example, community involvement is about construction activities, as other activities such as design and planning, management and financing are not the community's responsibility.

However, one of the key successes of local government in relation to post-disaster mitigation is the recognition of the local culture, as in this case, community cooperation proved to be one

of the key characteristics of resilience in this community's ability to re-establish itself quite rapidly. This strength is also based on the government's ability to recognise and utilise it.

This study does not focus on post disaster management, but the recognition by government of the importance of local tradition in community participation is a context which needs to be understood as a part of the contributing nuances and the circumstances behind the resilience of HBEs in Kasongan. This also relates to the need to understand the structure and process of resilience, which means influencing institutional circumstances to the resilience of HBEs. Although structure and process are part of the analysis in SLA, this study only explains this institutional description as a background context to what is behind the resilience. This is because the study focuses on the capital, assets and resources which contribute to the emerging resilience of HBEs.

5.4.3.7. Local Community Perceptions about Government

Bu Supari, an HBE owner with her husband, explained her feelings about the role of the government in the post-disaster recovery in an interview. Here are my field notes:

> *When the earthquake hit, it damaged the house, the front part of the house was damaged, including the rooms and the kitchen, and bu Supari's leg was broken by debris from the wall of the kitchen. With the grant of 15 million rupiahs, the house has been rebuilt and the construction strengthened. In addition, they also expanded and renovated the house, particularly at the front part of the house, using their own money. They ran away to a hillside after they heard about the issue of the tsunami following the earthquake. After the earthquake, they made a house from triplex with a zinc roof, and ate from donations, for several weeks after earthquake.*
>
> *To reconstruct their house, two carpenters and three assistants were needed, in a group of 7, including the owner who worked for the reconstruction and received a wage of 25 thousand rupiahs per day (taken from the 15 million rupiahs fund from the government). After the earthquake, they got 'jadup' (a Living Allowance) of 350 thousands rupiahs per month for each household.*
>
> *They felt that the grant was very useful, as without the grant they would have had to rebuild their house with 'gedheg' or bamboo material walls, which are cheaper materials.*
>
> *They started to make ceramics by taking raw materials from the river near their house(Field note, 20 July 2011).*

This example shows that the government's grant enabled the household to re-establish themselves and even improve their situation as the building was of brick rather than bamboo. It was essentially better in the immediate aftermath with the provision of food and shelter. The effort to re-establish buildings was essential, but it was also about re-establishing economic activity, in providing immediate building opportunities and subsequent spaces for these households to re-establish their ceramic business.

In summary, the recognition of the importance of local people in the post-recovery response is the second part of the context of this research, which seeks to answer the research question of how HBE households demonstrate resilience in post disaster recovery. The third context for this research is the growth of ceramic HBEs in the Kasongan area, which then made it possible to have interconnections between ceramic HBE households. These connections became part of the social capital which then had a role in building the resilience of ceramic HBEs in the Kasongan area.

5.5. Concluding Remarks

The historical context reveals how the Kasongan area became a centre of ceramic making, with strong roots and motivation. Thus, this economic and cultural activity is part of Kasongan people, and has spread to the surrounding areas as well. The transformation of HBEs section shows how HBE are able to connect each other to make their HBEs more efficient. The interrelationship between different types of HBEs is one clear aspect of the Kasongan ceramic industry. Through networking they distribute orders among themselves, as in an industrial chain, and it was interesting to explore the reasons behind it, due to a need to understand a mutual relationship among them to help each other.

Thus, the transformation of HBEs occurred as the interaction on a global scale affects the establishment of higher level HBEs. The differentiation of HBEs explicitly shows the differences, as well as similarities among the different types regarding place attachment, on both the household and community levels. By considering place attachment on the household level in particular, Home-based Enterprise covers small HBEs, middle and high profile industries using their homes as a place for ceramic industry. In this way, this complements previous studies on HBEs which tend to focus on small scale and informal economic activities.

The earthquake and the post-recovery responses section provided the context of Kasongan's post-disaster related activities aimed at reducing damage due to the earthquake. It also , described the process and stages of recovery and the stakeholders involved particularly government and community. It revealed that the Kasongan area and community experienced a relatively rapid recovery in contrast to other earthquake situations and it describes the process of this recovery phenomenon.

This revealed the importance of the various types of HBEs in the recovery process and the significance of their ability to network locally, nationally and internationally, which was also recognised by government through their recognition of the community participation reflected the design of the Kasongan recovery programme and how this supported Kasongan's faster recovery.

Therefore, this part describes the context of speedy recovery.

Chapter 6

Capital Analysis:
The Sustainable Livelihood Approach

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Capital Analysis: The Sustainable Livelihood Approach

This chapter aims to answer the research question of how HBE households demonstrate resilience in post disaster recovery paying particular attention to the dominant capitals found in HBEs coping strategies. Assets are important to support human life. According to Moser (1998), assets are related to vulnerabilities, and the more assets people have, the less vulnerable they are. Originating from the economic discipline, 'assets' has become a term that extends 'capital' in terminology, as this terminology tends to be used only to gain economic benefit (see section 3.5). Although assets are not always identical to the term 'capital', the analysis of assets also uses the Sustainable Livelihood Approach (SLA), as this approach is able to understand the coping strategies of households as the smallest unit of community of society (Friedmann 2011), by utilizing resources to cope with adversities. In relation to household as an area of this study, this chapter assesses the assets of Kasongan ceramic HBE households in the post-earthquake situation based on DfiD's SLA, particularly in the context of the post-disaster situation.

The chapter consists of the assessment of the capitals based on the resources of ceramic HBE households from the questionnaire, observations and interviews. Furthermore, as the assets analysis is based on the SLA, it is divided into physical, natural, human, social and financial capital. However, a cooperative works on the basis of both financial and social capital, and so the cooperative is discussed in a separate subchapter.

6.1. Physical Capital

Physical capital is about supporting resources in physical forms to adapt and cope. It consists of transportation, a kiln as an important piece of equipment in the ceramic industry, telecommunication and houses as a place for ceramic activities.

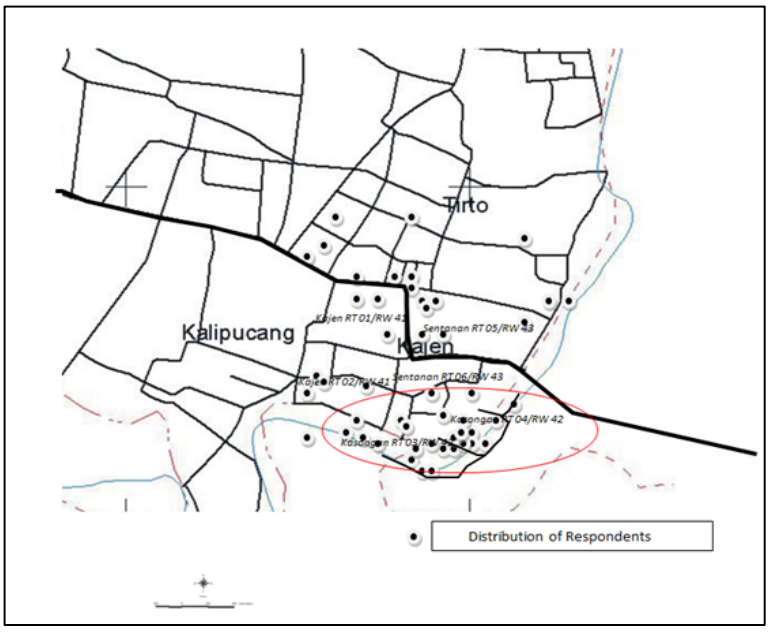

Figure 6. 1 The High Density Area: RT 3 and RT 4

The main road in Kasongan is in good condition and container trucks can easily access this area. However, in some parts, particularly in RT 3 and 4 (Figure 6.1), there is a high density of housing, and also the gangway is relatively narrow (Figure 6.2).

Figure 6. 2 Road and Alleyway in the Kasongan Area

Transportation is not only about the transportation of ceramics but also the access of tourists coming to the area to visit showrooms alongside the Kasongan road. Even though almost all Kasongan people use modern transportation modes to transport goods and people, in this area traditional transportation by bicycle or hand-cart is also used. Bicycles can also transport ceramics to traditional markets far from the Kasongan area, even more than 20 kilometres, such as to Yogyakarta City (Figures 6.2 and 6.3). Although the roads and alleyways are accessible for everyone, the alleyway in particular, due to its narrowness, can only be accessed by small vehicles. Only the main road and wider roads can be accessed by lorries, buses or big trucks. The alleyway can only be accessed by small trucks or wagons, bicycles or hand-carts. When it cannot be accessed by a big truck or lorry, smaller trucks or vans are needed to transfer ceramics from the HBEs to where the lorries or big trucks are parked. Due to the low access to the settlement areas with narrow gangways, the ability to recover after the earthquake was more difficult. Another small vehicle or even a hand-cart was needed to transfer goods, for example building materials, to transport them through alleys to enable the reconstruction of the damaged houses.

The roads in the Kasongan area are accessible to transport materials such as clay or firewood to market ceramics locally or internationally. The transportation modes connect to the market or to other production chains. Figures 6.3 and 4.5 show various transportation modes for tourist buses, lorries, big or small trucks, and bicycles.

The road condition and transportation modes supported Kasongan in recovery after the earthquake, in particular to distribute aid to the area. The roads in the Kasongan area were undamaged, and so it was easier to distribute the aid rather than to other areas impacted by the Yogyakarta earthquake, which experienced damaged infrastructure, particularly bridges and roads. On the macro scale, Kasongan benefitted by being accessible, and by being close to Yogyakarta City and Bantul City. Much of the aid came to the Kasongan area as this area is well-known as a tourist destination. Based on the interviews with the respondents in 2011, in the earliest phase in the post-disaster situation, when a post-recovery programme and action of government was still in consolidation, several spontaneous aid efforts such as giving food from celebrities or community groups from many big cities of Indonesia, were transported by truck or van to the Kasongan area, and these stopped on the main road only. On the micro scale, the ceramic HBE households in the Kasongan area near the road or with easier accessibility, seemed to be more resilient, in terms of the faster support they received, rather than the ceramic HBEs with more limited access.

While the kiln could be of various types, almost all the HBEs use firewood as their energy source, as they produce ceramics that need to be fired at a lower temperature.. Only one or two of HBEs use gas as their energy source, as they produce ceramics in white clay material which needs a higher temperature than red clay. Not all the home-based enterprises have a kiln, as some had open ovens instead (Figure 6.4.).

Small van is needed to transfer the ceramic from ceramic HBEs with gangway to where lorry parked to be exported

Small van is needed to transfer the ceramic from ceramic HBEs with gangway to where lorry parks to be exported

A Truck to market the ceramics for the cities in other province s

A small van is needed to transfer the unfinished ceramic transported to other ceramic HBEs (subcontractor)

A truck to market finished ceramics to other province in other island (Borneo)

Small van to transfer unfired ceramics from a subcontracting ceramic HBEs to another ceramic HBEs to be fired

Tourist Buses are on the road parking

Bicycle is needed to transport traditional ceramics from small or traditional ceramic HBEs

Figure 6. 3 Transportation Modes

a) Empty oven kiln with firewood energy source
b) Just after finishing the fired process of oven kiln with firewood energy source
c) Open kiln with dry organic waste energy source

Figure 6. 4 Kiln and Open Kiln in Ceramic Production

There is a project which provided kiln. The grant from the project was in the form of a gas oven; however, it was almost useless as it has never been used and gas was much more expensive compared with firewood. The kiln was less polluting; however, as the price of gas was higher than firewood, and the type of ceramic in Kasongan was typically earthenware or red clay ceramic, they did not need a high temperature oven, so almost all the ceramic home-based entrepreneurs did not want to use gas kilns (Figure 6.5).

Figure 6. 5 Gas Kilns for Ceramic production which are rarely Used

One ceramic home-based enterprise regularly use a gas kiln to make ceramics because they produced different kinds of ceramic, as depicted in figure 6.6. This ceramic HBE makes white ceramics, which is very rare in Kasongan, as only one or two Kasongan ceramic HBEs used gas as energy for the oven, so this HBE had fewer competitors. In terms of the resilience or recovery of ceramic HBEs in the post-disaster situation, although the energy sources are different, both the HBEs that use firewood or gas kilns were equally resilient, in different ways.

Figure 6. 6 Gas Kiln in a Ceramic HBE

The gas kiln was less damaged as it is stronger, with a steel framework and firebrick, whereas the firewood oven was made of brick without a steel frame. Almost all the firewood ovens were damaged, but as the cost was relatively low for the ceramic HBEs, it was fast to be rebuilt. Thus, from the perspective of the physical capital of the oven used, both types of ceramic HBEs were resilient or able to recover in the post-disaster situation.

The facility of the kiln is part of the physical capital, and most of the home-based enterprises had their own kiln, using firewood as the energy source from the wood waste. This firewood is easily found in the Kasongan area, provided by Kasongan's cooperatives and can also be transported from other towns (interview, 2011), because it is cheaper than those provided by local firewood sellers.

Out of the 58 entrepreneurs questioned through the none-statistically representative survey, most of the entrepreneurs had their own oven, with 62% of the respondents in Kasongan having one. 43% used firewood or gas ovens, and 19% had an open kiln or used their yard to fire the ceramics. The others, around 38%, had no kiln due to being subcontractors who moulded unfired ceramics for neighbouring ceramic HBEs, or because they finished for their own showroom, and therefore an oven or kiln was unnecessary.

The following first case refers to ceramic HBEs which have been categorized as subcontractors, local, with a characteristic of small or traditional ceramic HBEs. An example of this is Bu Wahini and Mbak Wagilah (section 5.4.5. and Appendix D). The second case of the absence of an oven is the type of ceramic HBEs with a specialization in finishing and marketing or selling ceramics with their own showroom. These include economically insecure or middle level ceramic HBEs, and an example of this is Pak Ribut's ceramic HBE (see section 6.2.1 of the Pak Ribut case). In brief, both of these types of ceramic HBEs did not need to have own oven as they were small and traditional or middle, economically secure, level ceramic HBEs. Likewise, a high profile or growing ceramic HBE such as Pak Timbul's also did not need to have an oven (see section 5.4.5. and Appendix D). Although he had his own oven, the oven was not used anymore as he used specialists to do the finishing, marketing and selling of the ceramics through his showrooms. He had many subcontractors to provide fired ceramics. In conclusion, the need for an oven depended on the type of ceramic HBE and whether they needed to fire

ceramics or not. Because those that needed ovens had ovens, or could share someone else's oven this was not a determinating factor in determining level of resilience. At the same time, this phenomenon demonstrates the close relationship between ceramic HBEs in Kasongan, so networking among them was important in their recovery.

A house represents the physical capital of HBEs, as it a dual functioning space for domestic activities and income generation (figure 6.7).

Figure 6.7 Houses with a Dual Function

The information technology in this area is in good condition as telecommunications are accessible, and there are some '*warung internet*' or internet booths. Like other areas, the Kasongan people have had mobile phones since the 1990s, particularly the younger Kasongan people, so mobile phones are not luxury goods anymore. Before that, the telecommunication system was limited and only available for high income people, but from the 1980s it has become wide spread, when electricity was distributed to this area. This opened the possibility for international commerce – for those who are able to utilise technology. For younger ceramic HBEs households, phones, particularly mobile phones, are helpful for their business. The internet is more limited, and only the younger people tend to utilise the technology and its advantages. In relation to the resilience of HBEs in the post-disaster situation, the recovery of ceramic HBEs was helped by the use of the internet. For example, a higher profile ceramic HBE communicated through the internet by email with a regular overseas buyer, and by doing that, he got help with more orders coming, which were deliberately ordered by the buyer in order to help the ceramic HBEs to restart the business in the post-disaster situation. By communicating through email as well, the buyer also helped the workers of this ceramic HBE to have funds to reconstruct their houses. For other ceramic HBEs, the communication through phones has helped them to get help from family or friends from other areas.

The type of physical capital which might contribute to the resilience of home-based enterprises varies, but it is particularly based on the available infrastructure, tools and space; however, this study focuses on the work space within the house and the strategic location of the work space or house. These selected physical capitals are based on the findings in the area of the post-earthquake situation.

6.1.1. Flexible Space for Ceramic Activities as Physical Capital

One of the household resources in the ceramic production activity is space for producing the ceramic products. The finding of flexible space used to produce ceramics, particularly in post-earthquake context, is one form of physical capital. Flexible space means space which can be used for a variety of different purposes, and the context of this is that emergency shelters were provided for those who need space as their house had minor damage, or was even completely damage. Indeed, some used this type of shelter not just for 'shelter' but also to restart their business – producing pots/ceramics in the space. This enabled those HBEs that did this to restart their businesses very quickly.

The process of recovery started from the emergency stage, to the transitional stage to the final rehabilitation stage. Several households restarted their ceramic HBE in the emergency stage; however, others waited until the transitional stage and even the rehabilitation stage (when their permanent house was ready to be occupied) before they restarted their HBEs. The difference seems to have been the motivation for restarting the HBE. The early start was due to a need for these HBE entrepreneurs to finance their basic household needs, and ceramic home-based enterprise seemed to be the only revenue source for these households. However, for households which have another household income, for example, the husband worked as a carpenter, the ceramic home-based enterprises tended to restart their home-based enterprises later. Another factor for restarting their ceramic home-based enterprises early was that there was a high demand for their product immediately after the earthquake. This was because the earthquake had damaged many of the households' ceramic utensils and facilities, and these needed to be replaced with new ceramics soon. Seeing the high demand, the HBE entrepreneurs were motivated to return to work as soon as they could.

The space of a room to produce ceramics was flexible: it could be in a tent or a non-permanent house; there was no need to have a permanent house to restart the activity. The place was not important for this activity: it was flexible, and it may support the productivity, but it did not have any effect on the production of ceramics.

Figure 6.8 Restart of Ceramic HBE in Tents in the Emergency Term

Source: Swasto (2007)

Figure 6.8 shows the tents used during the 'emergency stage' immediately after the earthquake in 2006. Some ceramic HBE entrepreneurs restarted their HBE by making ceramics in these tents within weeks after the earthquake. Bu Parjiyanti restarted production of ceramics, as her son needed funds to pay for private health care. Almost all the Kasongan entrepreneurs tended to restart their ceramic business soon even though the activity had no designated place. Such acceptance of the Kasongan entrepreneurs, even in forced conditions, shows an acceptance of flexible space as one of the assets of the physical capital of the Kasongan people in the post-earthquake situation.

6.1.2.The Importance of a Strategic Location: Physical Capital

The location of home-based enterprises is part of the physical capital effect on the fast recovery of HBEs. This part describes the importance of location to the Kasongan HBE.

According to Marsoyo (2012), location can increase the number of competitors. For example, when a new small shop is developed by a neighbour, it will reduce the old small shop's profit, as the buyer will have another option.

However, agglomeration theory (Fujita et al, 2002) suggests that similar shops in close proximity to each other encourage people to come to the locality because they feel they are likely to find what they are looking for. Kasongan as a well-known ceramic centre or even art village partly works on the strength that it is known nationally for its ceramics, which makes people (tourists) willing to travel, not just to see one ceramics outlet, but a number of them. Similarly, a street with a number of vendors selling the same thing will attract more attention

from the consumer than a lone vendor on a different street. This is how these two theories play out in a particular place and it may work to the advantage of one vendor and the disadvantage of another. If a vendor is producing a better product than his neighbour, having his neighbour may draw attention to both of them, and then his product will sell more because it is better.

Furthermore, the location of the HBE affects the type of ceramic HBE. A strategic location such as near to a main road tends to attract new buyers to come. Therefore, this type of location tends to become a ceramic showroom rather than a ceramic industry. On the other hand, the inner location tends to lead to the HBE becoming a ceramic producer rather than a ceramic showroom. As the location affects the type of HBE, most of the HBEs along the Kasongan main road are ceramic showrooms, so the ceramic entrepreneurs can sell directly the ceramics which are bought from another home ceramic producer, who usually does not live alongside the Kasongan main road. However, some other types of entrepreneur need to do such finishing activities by colouring or decorating raw ceramics from unfinished ceramics bought from other HBEs. An example of this type of entrepreneur is Pak Ribut(Figure 6.9), whose house is near the Kasongan main road. Because of its location, he built a new showroom to sell his ceramics, partly from the funds from the government to reconstruct his house post-earthquake.

Figure 6.9 Pak Ribut's New Showroom

Therefore, this part concludes that location determines the types of ceramic HBE: production or industry, selling in a showroom, or both, with the showroom predominantly using a strategic location alongside the Kasongan main road. This confirms a curved tent concept of the value of land, which argues that the space near a road is more accessible and more valuable (See Berry 1964).

In conclusion, this case has shown that a strategic location can become physical capital, as Pak Ribut's case depicted. However, such cases are very limited, as this fact is not a general fact in Kasongan, as most ceramic HBEs are located in the inner part of the Kasongan area and only a few ceramic HBEs are located alongside the Kasongan main road and have the same story as Pak Ribut's showroom.

6.2. Natural Capital: Easy Access to Raw Material

This section of natural capital looks at the main natural assets that Kasongan HBEs draw on, clay and wood, and then it analyses how these influence the HBEs' ability to be resilient, and how the earthquake affected the resilience of HBEs.

This part describes Kasongan's natural assets, particularly related to the river, which provides the raw material for ceramics directly or indirectly in terms of clay and sand for small or traditional ceramic HBEs. The Kasongan area has natural capital, particularly as it is placed near a river which can provide water and sand for ceramic industries. Meanwhile, some parts of the neighbouring area of Kasongan are placed in a valley which can provide fertile soil for agriculture; however, other parts of the Kasongan area are better for producing ceramics as they do not have fertile soil as it is too sandy due to the river and also the steep slope from the river is impossible to use for the irrigation of rice (Raharjo 2009). The climate of this area is typical for tropical areas, as there are rainy and dry seasons. As the drying process of raw ceramics occurs before the firing process, so the ceramic producers rely greatly on the natural mechanism of the sunshine to dry it. As a consequence, some problems of production may be caused by the long rainy seasons; on the other hand, ceramic production seems faster when the sunshine helps to dry not only the raw ceramic but also the organic or organic waste such as '*damen*' or organic waste from paddy plant leaves or firewood used in the firing process (Raharjo 2009).

The Kasongan people have undertaken this ceramic activity for several generations. Traditional ceramic producers used clay from Kasongan's surrounding areas, such as Gedongan. The paddy farm owners regularly asked for clay to be extracted to reduce the height of their farm field. Due to the accumulation of mud on the farm fields in the rainy season, the field level becomes higher and it is more difficult to acquire water from irrigation system or dykes. This activity has been done for decades, even hundreds of years, and it does not damage the paddy farm field as it becomes naturally inundated with mud every rainy season. Also, the amount of clay taken from the surrounding areas is not huge, as the HBEs are only on a home industry level. As stated before, historically ceramic production activity was one of the activities of the silent rebellion to colonialism. Rather than cultivate paddy fields, people preferred to make ceramics (see section 5.2.1). However, paddy farm fields exist in surrounding Kasongan areas, and there is a mutual benefit between the ceramic producers and paddy farmers, as the ceramic producers acquire clay and the farmer gets a lower paddy farm field level.

This part explains one of the assets, particularly from the natural capital point of view. As natural capital is related to various natural resources, this part focuses on the access to raw material of ceramic, particularly in clay. The raw material is provided in two ways: through raw material suppliers in the Kasongan area who then process the clay and provide it (figure 6.11.), or through the HBEs who do it themselves (figure 6.10). In general, traditional ceramic entrepreneurs provide and process the raw materials for their own activities. Local sand and clay are taken from nearby areas for example from the neighbour's field and they need to buy it, and then need to store it in their backyard.

For some other HBE households, a small amount of sand is also taken from the nearby river. This makes a stronger ceramic which does not shrink, and which is less easily broken when it is fired. As the characteristic of clay is soft and mouldable, it also absorbs water and when it is fired the water disappears, which then means that the ceramic can be easily broken. The sand cannot absorb water, so it makes the clay more elastic during the firing process, and consequently the earthenware is not broken (figure 6.10).

The river always provides mud and sand, b) a small or traditional ceramic HBE mix the local clay with sand c) sand from the river for mixture of traditional ceramic, d) another technique of a small or traditional ceramic HBE to mix local clay and sand

Figure 6. 10 Traditional Ceramic HBEs Use Local Raw Materials

In these cases, Kasongan ceramic HBEs need raw materials from suppliers, as it is too complicated to provide these raw materials themselves, but there are many raw material suppliers which acquire the clay from licensed clay miners. In figure 6.11, the photo shows the activities of a clay supplier in the Kasongan area who usually supplies ready to use clay in cubed form, delivered to the buyer using a small pick-up car.

In general, it is easy for the Kasongan ceramic entrepreneurs to access the raw material. Furthermore, in the post-earthquake context, the ease of getting clay as the main raw material remained the same, and so the ease of access and the availability of the natural capitals is supported the HBEs activities.

In some other parts, local and exported ceramic producers in particular usually use clay from the local providers, and there were eight providers in Kasongan area. For the local and international market ceramic HBEs, a more complex clay mix formula is needed, so materials from other areas – and even from other cities –is also needed.

The clay providers support the HBE households with ready to use clay as the orders come. The raw material is imported from other areas in the vicinity of Yogyakarta or Central Java Province, such as Banjarnegara or Godean, from licensed mining from unproductive land. However, one or two ceramic home-based enterprises, such as roof ceramic producers, have their own clay production, by importing the raw material from licensed mines.

Activity of a importer from other areas/cities/provinces in clay supplier enterprises for middle and high profile of ceramic HBEs , b) imported sand for raw material of middle/high profile of ceramic HBEs in producing roof ceramic

Figure 6.11 Raw Material in Clay and Sand

The energy for the kilns is wood. Traditional ceramic home-based entrepreneurs buy waste paddy leaves, or used waste such as branches from their own trees in their yard, to be the energy source for the firing process. Local and international ceramic producers use waste wood from woodlands or other surrounding areas, either directly distributed by wood stores in Kasongan (figure 6.12).

It has been recognized that this industry heavily relied on natural resources, using clay as its main raw material. Some of the HBE ceramics workers recognized that this activity can affect the natural ecosystem; however several entrepreneurs said in the interviews in mid-2011 that they believed that the scale and methods of their activity as traditional entrepreneurs (who had worked in the area using the same methods for generations), had a minimal impact, and that the natural mechanisms of the inundation from the paddy fields in the rainy season would reconstruct the soil and clay, so the clay can be viewed as a renewable resource. This shows a replenishing asset that might suggest that it is an asset which aids the HBE resilience because it can be relied upon immediately and for the long term

However, it is interesting that even though there is an abundance of raw material which is replenished by the floods each year, providing the Kasongan HBEs with a ready supply, some HBEs realise that there is a global issue related to natural capital, including in clay provision. Pak Sariman, a successful ceramic roof tile producer, mentioned the global trend of diminishing natural capital. This shows the awareness of some Kasongan people of the natural capital issue, which could also affect the sustainability of ceramic HBEs.

However, in Kasongan where clay in particular is naturally replenished, and consequently in ample supply for all, it is not a limiting factor in determining the resilience of HBEs as even the low profile HBEs can access it readily and easily, and its continuing availability after the earthquake enabled the HBEs to continue to work facilitating the fast recovery of the ceramic HBEs.

Free organic waste from neighbour for open kiln energy source

Organic waste from coconut tree for firewood kiln

A firewood booth owned by a cooperative of ceramic HBEs

A truck transports firewood from other province to be sold for ceramic HBEs in Kasongan

Figure 6.12 Firewood and Organic Waste as Energy Source

6.3. Human Capital

Education, skill, and other human capacity, particularly creativity, are at the centre of human capital (DFID 1999). The skills with ceramics of the Kasongan people are well-known in Indonesia, as the product can be accepted at various levels of market, even internationally, for good designs and quality, but also at a relatively cheap price. The Kasongan ceramic HBEs, particularly the middle or economically secure and the high or economically growing profile of ceramic HBEs households (see the types of HBEs in section 5.3), seems to have a highly adaptable sense of market demand, so they regularly change their design. Usually, they offer their designs and the buyer will accept or choose with or without modification.

Knowledge of making ceramics is usually passed through the generations, as their parents also produce the ceramics in the past, and they learnt from their parents. However, whether or not some parents had produced traditional ceramics in a simple design, almost all the new generation made non-traditional ceramics, and some of them even made exported ceramic products.

In terms of education level, from the 58 respondents selectively sampled (so not representative of the whole community), most of the home-based entrepreneurs had a relatively low education level as 41% had a primary school background. However, some entrepreneurs were illiterate (19%), and most of these were women and older people, producing traditional ceramics. The second largest group was those with a high school education, 37%, or with a junior high school education (23%), and senior high school (12%). However, a higher education at university level was 5%. Two of these were reputable entrepreneurs and exported ceramic products to international markets. By this variation in education level among the heads of ceramic HBEs households, it is clear that most of them had a relatively low education level; on the other hand, some of them had a high education level.

The education level seems to link with creativity, in that some older people with a low education level, or even no formal education at all, who make traditional ceramics tended to use the same design for several years. Some of the less educated were still creative, coming up with their own styles and forms. For example, some younger ceramic makers with a middle of education level or high school seemed to be creative by making a modification of a design. Some with a higher education level, tended to have better knowledge by using the internet to collect information regarding designs from all over the world, and thus had new inspiration for their designs. Creativity therefore seems to be linked to being better educated. This creativity tends to have a link with education level and thus affected their capacity to respond to strategies in the post-disaster situation. How social-assets are the leading assets in the resilience of ceramic HBEs in the post-earthquake situations explained in chapter 7.

The skilled people who make and finish ceramics do so in various ways (figure 6.13). Even though the skill and knowledge of the Kasongan people is highly reputable, they also receive workers from other areas of Kasongan area, namely from the Brebes Regency, in the southern part of Java, around 200 kilometres from Kasongan. This is due to the high skill level of the Brebes people in throwing gigantic green ware and working faster than Kasongan people. The Brebes Regency is also a centre of the gigantic ceramic industry; however, the ceramic market in that area is not well developed, so some of the Brebes people had left their village to work in the Kasongan area, and got wages on piece rate. However, not all the Kasongan people have workers from Brebes, as the price was quite high and these ceramic HBEs did not produce gigantic green ware.

This section focuses on the human capital of the Kasongan people in response to the post-earthquake situation, and it is further discussed in chapters 7 and 8.

Figure 6. 13 The Skills in Ceramic Making

Even though many of HBE ceramic entrepreneurs have a low level of education, they seem creative in terms of many designs being created, and these have to be adapted to meet changes in market demand (figure 6.14).

Figure 6. 14 Variation of Design in Kasongan

The variation of design in the Kasongan ceramic industry shows the creativity of the HBE of the Kasongan people. The Kasongan people can adapt to the market, and have acknowledged the different markets, for example a more shiny and colourful design for an Asian market, but a simpler opaque design is preferred by the Australian market (Figure 6.14).

This creativity contributes to the emerging resilience of home-based enterprises. Post-earthquake, the ceramic entrepreneurs restarted their business before permanent housing was rebuilt, and ignored their traumatic experience due to the earthquake and maintained their creativity to adapt to market demands. Most adopted new products but a few did more by being creative and unique at the time when they saw a demand.

Besides the skill and such creativity to respond to adversity post-earthquake, it is also related to the mental strength of Kasongan people who tend not to give in easily to circumstances or hard conditions. As demonstrated in a previous section (see Figure 6.8.), several HBEs restarted their businesses in tents. Even though the area had been destroyed by the earthquake, many entrepreneurs immediately restarted shaping the raw ceramics, once the immediate trauma had ended and they had the motivation to restart their enterprises as soon as possible.

> *'…we had already started the ceramic production in the tents, because we had done nothing for several days, felt bored…even though some helps come to us in lunch boxes, but we need more money* ….(Interview,27 June 2011)

Both the external triggers such as the high demand in the post-earthquake situation (discussed in section 5.4) and the adaptability and flexibility of the Kasongan people contributed to the recovery of HBEs in the Kasongan area. Furthermore, their self-confidence in producing ceramics tended to effect a faster recovery of ceramic HBEs. The interviews with Bu Tumilah and Mbak Atun show that they had self confidence in ceramic making, as stated in chapter 1:

> *If I get 3 million rupiahs to establish a small shop, I will reject it, but if the fund is used for produce ceramic I will accept it, as I know how to make a good ceramic…this is my expertise*…(Interview,13 June 2011)

Another illustration of the skill related to ceramic making is described in section 6.3. In conclusion, the dimension of skill and self-confidence is important in relation to providing resilient HBEs in Kasongan.

Imitating a trending or in demand neighbour's design, by some ceramics HBEs, even though the practice contradicts copyright issue, was common. Nugraha (2009) stated that Kasongan people generally replicated, or modified the design of sold-out products, and they were mostly inspired by their neighbours who had successfully sold a certain design of ceramic products. For example, when a horse statue was sold out and top-rated by customers, the neighbours would also make a horse statue with the neck heading to the right, whereas the other neighbour made the horse statue with head bowed or neck heading to the left. This practice has been carried out in Kasongan for years and is accepted (Tyas 2014). This is likely evidence

that the local people's perspective tends towards maintaining harmony among them rather than conflicting with each other through complaining or even claiming in court that a neighbour imitated or modified their ideas. They felt that sometimes a neighbour had luck with popular ceramics, but when he or she also had good luck in the same way, he or she would also not complain when some other neighbour imitated the design with a few modifications. However, it also happened that a counteraction in the effort to protect personal designs was a strategy of some people, for example Pak Tri (Interview, 7 July 2011). He kept new designs secret at his ceramic HBE, in a hidden and protected area. The new design was only shown to prospective buyers or old customers who came to his ceramic HBE.

This demonstrates that that the practice of replication by modification of popular ceramics was perhaps a dilemma for some Kasongan people. Another interesting strategy by households regarding the response to adversity post-earthquake can be shown in the Bu Suparmi case:

> *In interview with Bu Suparmi to adapt and cope with poverty, to educate their children as high as they can (in university) to get a better life rather than the parent, by selling the car, part to repair the house in post-earthquake context and other part of the fund is used to buy and grow cows in their backyard-but then protested by neighbour*
>
> *I met with Bu Suparmi, who made sets of round tables. Her husband worked as a driver, and the family had two cows as an investment, and bred them in their backyard. Their kids were already grown up: one was a university student with a part scholarship to support his study, but also worked part-time in a shop, and the other was a high school student. After the earthquake, the family had to sell their family car due to not getting a reconstruction grant. From the 22 million rupiah from the sale of the car, they bought a cow, and at the time of the study they still had their cow, which had had two more calves and become their investment. Thus, borrowing money from the cooperative KSB was the best alternative when they needed to pay the tuition fees for their child, and then when their cow had a calf, the calf was sold to pay the debt to the cooperative.*
>
> *However, there is a constraint in the method of investing, as the environment agency of the local authority had suggested not breeding cattle in a residential area, due to the complaints from the neighbour. When I talked about this, the neighbour of Bu Parmi opened the window and showed her long face. So, the neighbour disliked the cattle breeding near her house* (Field note, 12 July 2011).

This case shows an ability to diversify – as they bought a cow, moved into subsistence farming, and financed their children's education. However, it seems contradictory with the environmental issue as the neighbour complained about the cattle breeding in the settlement area. Although a complaint and also a warning had been sent to this household, it is likely this contradictory strategy was working in terms recovering from the post-disaster situation and at the same time raising their children with a high education level.

Another dimension of human capital is the ability to diversify economic activities in relation to ceramic enterprises. One case is Pak Giyono, who is an example of diversification. Pak Giyono

also had the skill to teach elementary school students to make ceramics. Regularly, he was requested as a trainer or teacher, to make ceramic in his workshop. For him, if the job related to ceramics and he could do, he would:

> *For bigger HBEs, interview with Pak and Bu Timbul on adaptation of creations: subscribe to Voque magazine to know the colour trend in Europe, makes a big and representative showroom in Kasongan and Bali to attract the local buyer as international market seems collapse* (Field note, 12 July 2011).

For a high profile ceramic producer, human capital seems different as they seem to have a higher education level, and consequently the strategy to respond to adversity post-earthquake seems different. For example, the strategy of a high profile ceramic HBE was to subscribe to international and reputable magazines to keep watch about the colour trends in European countries. Therefore, they could always follow the seasonal trend and put in their finishing colours to their ceramic products. The other strategy was to build a big and representative showroom, not only in Kasongan but also in Bali as the best tourist destination in Indonesia. This strategy was one of the many strategies of Pak Timbul ceramics' HBE.

In conclusion, the ability to diversify as stated above is thought to be a creative ability by utilising various strategies of the Kasongan people to maintain their ceramic HBE, including a strategy of a ceramic HBE household in receiving funds for house reconstruction and, at the same time, to invest in educating their children. This demonstrates an adaptable and flexible ceramic HBE household, even in difficult times, shows how the human factor is very important in relation to the current resilience of HBEs in post-earthquake. A more detailed explanation in relation to the contribution of human aspects in presenting resilient HBEs is shown in chapters 6 and 7.

6.4. Social Capital[1]

Social capital consists of formal and informal relationships, networking and connectedness (see section 3.4.2). This section discusses the capital relating to the connection between people.

[1] Based on DFID (1999). "Sustainable Livelihood Guidance Sheet." Retrieved 25 November 2010, 2010, from www.eldis.org.

networks and connectedness, either vertical (patron/client) or horizontal (between individuals with shared interests) that increase people's trust and ability to work together and expand their access to wider institutions, such as political or civic bodies membership of more formalized groups which often entails adherence to mutually-agreed or commonly accepted rules, norms and sanctions; and relationships of trust, reciprocity and exchanges that facilitate co-operation, reduce transaction costs and may provide the basis for informal safety nets amongst the poor (chapter 4).

6.4.1. Networking and Connectedness

In the Kasongan area, networking can be seen in various ways, both informal and formal. Informally, *'gotong royong'* is a tradition of mutual help, or connectedness between neighbours or family members. Such '*gotong royong'* or mutual help can usually be seen in the events which are routinely done in the maintenance mechanisms of village infrastructure, such as cleaning up roads or gangways. *Gotong royong* routinely occurs in August, as it is needed, for example, to build an entrance gate in a gangway, or to repaint a security post to celebrate National Independence Day.

Rotating night guards, a kind of common social duty known as *ronda*, is an activity to secure the neighbourhood area by a rotating schedule on a certain day for each household head to patrol at night in the surrounding areas. In some areas, the man on *ronda* duty also has to collect *jimpitan*, a spoon of rice, which is put in front of the house, and is collected regularly every night and then sold when collected in sufficient quantities in return for communal cash for the RT[2] forum.

Arisan is also a formal forum or meeting for women in RT, usually on a monthly basis, and is one type of Rotating Savings and Credit Association or ROSCA, as Geertz has already researched in Mojokuto, East Java. The meetings may be on a regular basis, for example, monthly. The same amount is collected from each member at the meeting, and one, or several members, takes the whole sum once. Thus, each member has an opportunity to have a larger sum of money and use it for whatever he or she wants. Geertz describes the 'arisan' in the ROSCA in Modjokuto as an intermediary between peasants and traders' attitudes toward money and its uses. '*Arisan*' can also be used for socio-religious reasons, as the money can be used for a pilgrimage (Rutten 2003). Another connectedness lies in '*sambatan'* or mutual help with house renovation or construction between neighbours. According to Raharjo (2009), even though they are not related, or '*kekerabatan'* (kinship), they interact and cooperate with each other as they have the same interests and need help. In time of sadness or disaster, neighbours comfort the victims. Another '*sambatan*' is maintained through traditional events in relation to life cycle, particularly birth, marriage, or death. This mechanism of social connectedness is typical for Javanese people. Social connection can be presented in various forms, such as life cycles, or happy or sad events, but principally '*gotong- royong'* is used to achieve:

[2] RT is an abbreviation of 'Rukun Tetangga' which consists of up to 30 households based on proximity and administrative area. Several RTs will make an RW, an abbreviation of 'Rukun Warga'. These RTs and RWs are likely to be a hierarchy to help the upper government level, such as in the village (in a Regency) or sub district (in Municipality or City) level as well Districts/Municipalities, Provincial or even Central Government, to socialize their policies and programme. However, the head of the RT and RW is basically on a voluntary basis, not part of the government work.

> *'…environmental sustainability and to help governmental programmes succeed, to maintain the ceramic production practice, and solidarity in social harmony'* (Raharjo 2009).

Other forms of connectedness amongst the Kasongan people are informal, and are not developed by the government as a business relationship, as they are about the hierarchy and relationship between the ceramic HBEs in Kasongan (see section 5.3.4 of the profile of ceramic HBEs).

Even though as ceramic home-based entrepreneurs they had individual interests, they needed each other, particularly when they were not involved in the whole production chain. For example, one produced earthenware which was bought by another who painted and decorated the earthenware, and then the buyer sold it in their showroom near the Kasongan main road (Figure 6.15 upper photos).

An informal connection developed through daily chatting was also common, for example figure 6.17 shows a daily activity near the river in the evening when the people had already finished their ceramic home-based activities. They were talking about their daily activities, and sometimes they used this informal meeting to ask for help in relation to their ceramic production (figure 6.15 bottom photo).

Figure 6. 15 Connections with others

Using a shared wood oven was also one common form of connectedness for several ceramic home-based enterprises. Also, shared space between several home-based enterprises was common; usually, they were in a family relationship or had kinship (figure 6.16).

Formally, in the sense of a top-down policy, local government had the role of establishing social networking among Kasongan people through the formal connectedness developed in the RT, RW, and LKMD in regular meetings of neighbourhoods in the RT, which consists of 20-30 households (Raharjo 2009).

Figure 6. 16 Shared Kiln and Workshop for a Family

From the perspective of formalized connectedness, the government played a role in developing the relationships formed in the RT, RW, and LKMD (Raharjo 2009). The smallest group of social connectedness was in the RT forum. This was a meeting of several heads of households in a forum to communicate the problems faced by households in relation to the social aspect with other households in the same RT. The meeting was also a means of informing the government programme which needed a response from households. The forum at the RT level was a means of communicating information from the upper level government. In addition, as with the heads of household forum in the RT meeting, this forum was used to convey information from the government program from the upper level, as well as to inform programmes specifically related to household welfare, health, or the education of children in households.

Active participation of RT members in following meetings and rules was needed, and if any member did not follow the rules sanctions would be discussed, and the person would become the subject of a kind of gossip, and possibly be alienated from others. Such stigma following perceived anti-social behaviour was attached to those who did not follow the social activities in this formal forum. The same sanctions were applied to men who did not follow the men's meeting, or to any member who did not join or come to the '*arisan' (ROSCA)* or to RT meetings or follow its rules. This was felt to be anti-social behaviour which had no status in law. The ROSCA facilitated a relationship of trust, reciprocity and exchange for cooperation, reduced transaction costs, and also to provide informal safety nets.

6.4.2. Social Capital: Strong Linkage among Neighbours

Social capital is the relationship or networking of the Kasongan people. In several parts of the Kasongan area, a culture of mutual self-help in neighbourhood areas, particularly *gotong royong* is dominant and it is strong and helps other households or entrepreneurs to produce ceramics.

'*Gotong royong*' is also one of the social links which supports HBE activities, for example in burning the raw ceramics (see figure 6.17). According to Koentjaraningrat (1984), in Javanese culture, neighbours are very important. Kellett and Bishop (2006) also state that in the Indonesian kampungs, income generation activities are embedded within social networks. This collectivism or social relation is such that individual interest is subordinated to the group interest (Duncan in Kellett, 2006). Figure 6.17 shows that all the participants freely sacrifice their time to help their neighbour's economic activity.

> *In the daily life, small (traditional) ceramic producers always help each other. For example, residents alongside the river help their neighbours to bring the raw material to the open kiln or kiln. The women also help to cook meals for 'pengajian' as 'rewang' or helpers at prayer meetings in their neighbourhood area* (Field note, 27 July 2011).

Figure 6. 17 *Gotong- royong*(Mutual Help) in the Ceramic Making

Starting from old traditions which support others in daily life activities, the culture of '*gotong royong*' facilitated the recovery following the earthquake, including the Kasongan area. The

government recognizes the community's potential to contribute to the recovery. This was explained in section 5.4.3.

> *For government, if the question about the role of government and community that it cannot be separated….the community has 'gotong royong' and such a community has mutual self-help or mutual help, …but the prominent driving factor is 'gotong royong'..What's the name…the kin relationship is high….Also, the government only needs to facilitate what the government can …..*
>
> *The culture of 'gotong-royong' makes it easier for the government to reconstruct the damaged houses, as….Due to the culture in 'gotong royong' it is easy to reconstruct, we only need to facilitate in good management, if not the Aceh case will happen here, as in Aceh still any Acehnese live in a shelter. Another thing is that the rural community has a characteristic sometimes they are not satisfied with a prototype house….if they can plan, and develop the house as they want, it is easier so the local government only needs to control the quality as the house must have a strong construction, for example reinforced steel should be of a minimum measurement, which is facilitated by a housing permit.* (Interview, Infrastructure of Regional Planning Board, 27 June 2011)

In an interview with the husband of Bu Supari in the community group (*pokmas*), who was working in house reconstruction, the mechanism of housing reconstruction by using local people as the builders, was adapted from the '*gotong-royong'* culture:

> *After the earthquake they made houses from triplex and zinc roofing, and ate from the donations for several weeks after the earthquake. To reconstruct their house, 2 carpenters and 3 assistants were needed, in a group of 7, including the owner who worked for the reconstruction and got wages of 25 thousands rupiahs per day. They felt that the grant is very useful, as without the grant, they thought that they could only rehabilitate the house with 'gedheg' or bamboo material walls, which were cheaper. They started to make ceramics by taking raw materials from the river near their house. After the earthquake, they got 'jadup' or living allowance in 350 thousands rupiahs for each household. (*Field note, 12 July 2011)

This shows the perspective of grant beneficiaries who felt the benefit of the programme, but more importantly this quotation demonstrates the networking and mutual help among the Kasongan people.

In conclusion, social capital, including '*gotong-royong*' has contributed significantly to the post-disaster recovery. Reconstructing the house was important for HBEs due to the house being not only their shelter but also the means of generating income. By design, a programme to reconstruct houses with a limited grant, as stated by local government staff, facilitated the local culture of mutual help within the community. This strong networking among the Kasongan people is one of the important factors in the post-disaster situation, supported by the government, particularly in the emerging resilience of the HBEs and the recovery of ceramic HBEs in the Kasongan area.

6.5. Financial Capital: Access to Financial Institutions

In terms of financial capital, it seems that this capital is the most important of HBEs, as funding is important to the continuation of an enterprise. Financial capital seems important in providing initial capital for operating, and also for maintaining the enterprise. Finance is one capital regarding the operation of all enterprises, including the sustainability of home-based enterprises activities. Furthermore, this part explains an aspect of finance resources, particularly in terms oRadityaf how to access the financial resources of a bank. Due to the other financial resources, namely the cooperative, having multi dimensions of finance and social capital, the cooperative is explained in a separate sub chapter (section 6.6). Other financial resources such as savings or family debt are not part of this chapter, as this financial capital was only used by a small percentage of Kasongan households. As depicted in chapter 4, only three out of 58 Kasongan household respondents had borrowed financial resources from family members.

However, in terms of financial matters, one of the unique characteristics of HBEs is that the household and enterprise cannot be under separate management, and this may be one of the obstacles to HBE development (Dewantari 2010).

This section first presents a description of the income and financial sources for households, followed by access to a financial institution. The incomes of HBEs in Kasongan are generally below the regional minimum wage. Of the 58 selected respondents questioned in the initial fieldwork, 53% of the respondents had income of less than one million rupiahs, which is less than the regional minimum wage (UMR) of one million rupiahs. Based on 58 respondents selected sampled, the entrepreneurs who had income of up to double the regional minimum wages comprised one third of all, at 33%. Those with an income of more than three million comprised 14 per cent, and about 12% in this category had more than five million above the regional minimum wage. This shows that the income of the entrepreneurs varied, but most had a lower income and used it for basic needs, with only a few of them being successful enough to gain a good income from their enterprises. All the highest income ceramic producers operated in both the local and international markets, while the lowest income producers were mostly traditional ceramic producers.

The low income of this group was due to the profit being lower than that for the international ceramic producers, as traditional ceramic products were only 5,000 rupiahs and the profit comprised 10 per cent of this at around 1,000 rupiahs. However, for exported ceramics, the value could be 150,000 thousand rupiahs, with 50,000 profit for each ceramic. The gap in profit also means that the resources were different, for example, the international market always needs new designs and is relatively more expensive to produce and sell the products on the market, while traditional ceramics are relatively low cost, and the raw materials can be found near the houses. The higher margin of profit is presumably because the international market also carries higher risk –because if mistakes are made then they tend to have bigger

consequences, e.g. if the wrong colour trend is identified then the products will not sell, or if the financial market collapses, then larger organisations may be overcommitted.

In terms of financial resources, not all the entrepreneurs questioned had the credit to obtain financial resource regarding the continuity or expansion of their business. Even though 48% had credit either from their family of a financial institution such as a cooperative or banks, around 19% had never had credit to finance their business. Around 33% were reluctant to answer this question, whether or not they had credit.

Regarding the financial capital, it is easy to find a bank branch in the area, and credit proposals. Banks provide financial loans to help support HBE entrepreneurs in their activities, and tend to make funds available immediately, for example when an order comes in, they needs funds to buy clay or firewood. In the Kasongan area, several banks have a small branch office to support the area, namely BPD and BRI.

Pak Giyono relies on bank credit as follows:

> *Pak Giyono did not join any CBOs or cooperatives, but borrowed money from the bank. He did not want to join as he had not been asked to join from the beginning, and was ashamed to join by his own initiative, and also he felt that there was no benefit.*
>
> *Pak Giyono has to borrow funds from a bank particularly when the order was a large quantity and he needed to add some funds to buy raw materials. He usually returned the fund in 2-3 months. (Note of interview of Pak Giyono)*
>
> *He said that the 15 million for his parents' rebuilding of the house was limited but enough (to buy for steel, cement, and a roof, and he could only reuse some of the undamaged bricks or wooden doors and windows).* (Field note, 21 July 2011)

Almost half of the 58 respondents had a bank or cooperative loan. However, even though finance was important, it was not the sole important factor when the managerial capacity to manage the financial aspect was lacking. Therefore, in this case human capital in skill or the capacity to manage is more important than finance. Furthermore, the cooperative is one important financial resource, particularly for enterprises, that is explained in an upcoming part, as cooperatives are a combination of financial and social capital.

However, two of the case study HBE households of mbah Temu and Pak Pariyanto borrowed from the bank, but became bankrupt as they could not repay the bank loan and interest (appendices). The case of Mbah Temu demonstrates the consequences of not meeting the loan repayments for her business:

> *Mbah Temu was a mother of 7 children and had several grandchildren. She and her husband produced traditional ceramics in an 'anglo'/traditional stove. Previously, she had produced gigantic 'guci 'and had a certain market in Surabaya, East Java. Before the earthquake, she had many workers including her sons who worked in her HBE by transporting the products to other provinces. So, at that time, she had a middle profile ceramic HBE. But her son had an accident driving the truck, and she needed to*

> *repair it and suffered the loss of the broken ceramics, she needed a lot of money. Also, the mud flood in Lapindo destroyed her market in Sidoarjo, and finally her HBE collapsed as the debt in the Danamon bank could not be repaid, as 20 million rupiahs became 50 million rupiahs, and she needed to sell part of her land as her collateral to pay her debt. The earthquake worsened her business as she needed 10 million rupiahs to build a new oven as the previous one was damaged in the earthquake* (Field note, 2 August 2011).

Although it was easy to access financial capital for almost all the Kasongan ceramic HBEs, in this case, the recovery of ceramic HBEs was sometimes not helped by financial institutions. In the post-disaster situation, she had a less fortunate condition after the accident which was worsened by the earthquake as the damaged ceramic HBEs did not help her HBE in recovery, but worsened it.

Another case of failure to repayment a bank loan is the case of Pak Pur:

> *..The previous buyer had gone before the earthquake, and after that they tried to find another huge production by getting credit from the bank of 20 million rupiahs, but on the night of the earthquake, ceramic products worth 50 million rupiahs were damaged. Recently, they had got a sample order for Spain of 10 million rupiahs, but then an earthquake struck the destination, and so the next order was cancelled. So, several times, the HBE had tried to re-establish and produce as before, but it was prevented by the limitations of the market and the human capital/skilled persons* (Field note, 12 July 2011).

This case demonstrates how some HBEs were not helped by the existence of a loan from a financial institution in the post-earthquake situation. Although a debt relief strategy was also part of the recovery programme of the government, according to an interview with Bu Pur, the information was not been received by her household. They repaid all the credit and their business collapsed. However, the financial assets were not the only reason for this HBE being unable to recover, as indeed this case demonstrates that other factors, such as the human capacity to manage the business, are more important than just having money.

6.6. Beyond the Capitals: A Helpful Cooperative

Cooperatives are a form of capital which contain both financial and social capital. A cooperative is set up in neighbourhood areas based on a commitment among the neighbours, and so the most important aspect of these cooperatives is the objective of financial and social capital.

Cooperatives are not easy to include in social or financial capital, as both forms of capital are components of a cooperative society. Such a society is defined in the dictionary as ‘a society established on the principle of a joint-stock association, for the production of commodities, or their purchase and distribution for consumption, or for the borrowing and lending of capital among its members’.

A cooperative has dual capital characteristics in social and financial capital. Therefore, both social and financial capitals are part of a cooperative society. The establishment of cooperatives requires social relationships which facilitate a binding commitment from the members of the cooperative based on trust. Cooperatives are considered and included under social capital as the dominant function of a social relationship based on trust underpins a cooperative. On the other hand, a cooperative also has the dimension of financial capital because of the 'borrowing and lending capital' function of cooperatives. Kasongan has cooperatives which supported the HBE households in the post-disaster recovery.

A cooperative had become the financial resource for around 15 households out of the total of 58 respondents, as these had a financial support in the form of a loan. Indeed, they felt the benefit of joining the cooperative. This section explains the role of the cooperative for Kasongan people.

In the Kasongan area, at the time of writing there were three cooperatives, Koperasi Setya Bawana (KSB), and Koperasi Usaha Bersama (KUB), and Koperasi Senin Kliwon. However, this study focuses on two of these cooperatives, KSB and KUB, as both had affected the communities and been successful in gaining their aims.

KSB is a cooperative supported by the central government through the Department of Industry and Trade, and it was given funds of nearly one million rupiahs just after the 2006 earthquake to support the reconstruction of ceramic enterprises in Kasongan. However, the funds were also used for other types of enterprise. KSB was involved not only in the lending activities but also distributed funds for showroom improvements. Membership was relatively large at around 500 members, and mostly they were Kasongan HBE entrepreneurs. The funds from central government of around one million rupiahs were designed to help Kasongan ceramic HBEs in restarting their businesses in the post-earthquake situation, starting from 2006.

Figure 6. 18 KSB Credit Cooperative: Credit and Repayment Activities

KSU is another cooperative in Kasongan. According to Yusdayati (2009), after the emergency, recovery, and reconstruction phase, the restoration phase was also part of the response phase in which cooperatives were built, as an exit strategy for the donor in supporting the Kasongan people. KSU was part of the exit strategy. One donor in this restoration stage was the AUSAID Relief programme, which only helped in the area of RTs 3-4 in Kasongan. This cooperative had a smaller area of operation as it was designed to support RT 2 or neighbourhood units in RTs 3 and 4, as these areas were worst affected by the earthquake in 2006. RELIEF, an international NGO funded by AUSAID, started activity in 2007, and helped to repair the gangways in RTs 3-4 with member from around 40 households. They also helped to support livelihoods in this neighbourhood, particularly in relation to ceramic production, such as training. One exit strategy was to help the community have its own cooperative to support the community in this area, which were almost all ceramic home-based enterprises. The cooperative is KUB, and was still operating at the time of writing in support of the cooperative's members.

KUB was also a lending and saving group for women, and had an enterprise division which included showrooms to help market the members' products, help with bamboo panel making and selling, train people in ceramic production; they also had their own firewood store, and a plan to have a tourist village which had as yet not worked..

As an exit strategy, the cooperative was developed and managed by local people to become independent. KUB played a prominent role for it members as it provided loans with the group's collateral, gave workshops to develop entrepreneurial skills, and also provided a showroom for the members who needed it. However, the membership had recently become closed as the existing members had made an agreement between themselves to limit the membership numbers as the existing members did not want to change the share of benefit.

For the members of the co-operative, the organization provided financial support through social networking within the group, and thus it increased their resilience in the post-earthquake situation. Unfortunately, however, anyone not part of the cooperative could not obtain benefit from it as they were excluded from the group. Therefore, it seems that the cooperative is exclusive. One of members of the KSU, Pak Tartono, felt that the advantages of becoming a member of this cooperative were as follows:

> *..Pak Tartono is a member of the KSU. He felt that the advantages of becoming a member were that he could participate in several training sessions important for his ceramic HBE, such as how to manage SME, and he had a picnic trip every year so he could be more relaxed. But, more importantly he could have the opportunity to put his ceramic products in a showroom owned by this cooperative, located near the Kasongan main road….(*Field note, 6 June 2011).

From this it is evident that it is very difficult to differentiate between the capitals in the cooperative, as the social capital developed through the social dimension of the cooperative was more dominant than the financial dimension.

Figure 6. 19 KUB in RT and 4 in Activities

6.7. Concluding Remarks: Dominant Capitals

This study focuses on the contribution of social assets to the resilience of ceramic HBEs in the post-disaster situation. All the capitals included physical capital, natural capital and financial capital contributed to the Kasongan area's home-based enterprises' resilience, and the ready availability of clay (one of the area's key natural assets) ensured that all the HBEs had the potential to recover equally as all had equal access to this resource. However, based on the fieldwork, interviews and analysis presented above, it was the human factors that operated as the key determinants distinguishing the relative post-disaster resilience of individual HBEs in Kasongan.. Consequently, this research believes that human factors are very important factors in the building of resilience of HBEs

From a physical capital point of view, the benefit of having a strategic location in successfully developing the business post-earthquake was apparent in only one or two cases. On this basis, it was therefore not a common factor in the re-emergence of the Kasongan ceramic HBEs. In addition, the common use of temporary flexible space/structures (tents) for ceramic activities during the emergency term of the post-earthquake period demonstrates that the construction of permanent buildings is not a prominent factor in the speed of recovery, or in the development of resilient home-based enterprises. Thus, the availability of space was important to facilitate the existence of ceramic home-based enterprises (Marsoyo 2012) but the quality/characteristic of permanent space contributed neither to the development of resilient HBEs or rapid recovery post-earthquake, nor to the bounce back or toughness of the resilient ceramic home-based enterprises. Indeed, the industry's ability to use temporary moveable structures whilst more permanent structures were being built allowed many entrepreneurs, who would otherwise have failed, to continue to be employed in their HBEs and to take advantage of the demand for ceramics created by the earthquake. This adaptability made them resilient.

Financial capital is important for the existence of home-based enterprises, as funds are needed to buy materials and tools which were damaged in the earthquake. However, these funding resources varied, ranging from an entrepreneur's own savings, to borrowing from his/her family, or borrowing from a bank or cooperative. This variation did not create the significant difference one might have imagined in developing resilient or non-resilient ceramic home-based enterprises. An entrepreneur who borrows from the bank can become a resilient home-based enterprise. However, a case study HBE entrepreneurs who borrowed from the bank became bankrupt as he could not repay the bank loan and interest (appendix D part C). This demonstrates that ready access to funds in the form of a bank loan does not inevitably make an HBE entrepreneur more resilient.

In contrast, a cooperative can be seen as having both financial and social capital, as it is developed by a group of people, and the members of the cooperative can borrow a loan from a cooperative fund to finance their needs, including financing their business. The cooperative can be seen as a financial asset, but it also has a social perspective created through the members' collaborative connection to those in the cooperative.

Most ceramic home-based enterprises in Kasongan were resilient; however, a few HBEs could not bounce back after the earthquake, suggesting that not all were resilient. Indeed, the ceramic activity did not bounce back to the level it had been before the earthquake, and did not achieve the same level of revenue as at the peak of business. It may be that the decrease in ceramic home-based enterprise had possibly started even before the earthquake, and the earthquake triggered a fatal effect for some of them. Immediately after the earthquake, almost all the ceramic home-based enterprises were damaged: ceramics, raw ceramics, raw materials, and even the houses. Almost all recovered their ceramic home-based enterprises, but several of them were not able to recover as before. The worst affected were those without human and social capital, as these types of capital, more than other capitals such as physical, natural or financial, contributed significantly to resilience, and therefore the recovery, of ceramic HBEs in the post-disaster situation.

This confirms Aldrich's statement (2012: 15): a 'high level of social capital –more than such commonly referenced factors as social economic condition, population density, amount of damage or aid –serve as the core engine of resilience'. This emphasizes the importance of the networking of Kasongan ceramic HBE households in mutual help for the recovery in the post-disaster situation, which has been portrayed in the 'gotong-royong', and 'sambatan' cultural events among of them.

In relation to humans as assets which contributed to the resilience of ceramic HBEs, this study confirms what Oliver-Smith and Hoffman (1999) argue in that in the post-disaster context, human responses and behaviour are necessary to solve their problem in relation to their loss. This is in addition to an external response dealing with neighbouring communities, aid givers or the government being crucial to the recovery process (Hoffman and Oliver-Smith 1999). The factors of skill and creativity were also likely lead to the adaptability or flexibility of the Kasongan people in dealing with the post-disaster situation.

In chapter 7, there is a focus on the exploration of the social-capital aspect of the Kasongan people, which means the human and social capitals in response to the post-earthquake situation. Chapter 8 focuses on the human dimension, particularly human capability and capacity in dealing with the post-disaster situation.

According to Lyons and Snoxell (2005), social capital is important, particularly in family relationships that provide a relation of trust, and informal financial institutions when the formal institutions are weak, as well as its role in information sharing. The development of trust can be built by repetitive interaction in the marketplace, and thus this trust can reduce transaction costs and uncertainty (Smith and Fukuyama, in Lyons and Snoxell 2005). However, in the Kasongan case, social capital is not only based on family relationships; it is also a business relationship between different types of HBE or neighbouring HBEs (chapter 5). Indeed, social relationships and thus social capital is important in recovery.

More importantly, social capital has a role in augmenting or substituting other forms of capital, such as financial capital, and it is particularly significant for people with no formal education or for the widowed, who are particularly dependent on this link and on the associations and institutions which support it. Also, local culture is an important mediator of the formation of such institutions (Lyons and Snoxell 2005).

Chapter 7

Emerging Resilience of HBEs: The Contribution of Human and Social Capital

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7.1. Introduction

According to Aldrich (2012), social capital is the most prominent factor in post-disaster situations, more than the social economic condition or even financial aid. In order to answer the research question of how HBE households demonstrates resilience in post disaster recovery, this chapter corresponds with the third objective in the examination of the key factors which emerged in the resilience of HBEs, from human and social capital in particular.

In doing so, it needs to explore of household strategies, particularly based on human and social capital. The exploration includes how people at the household and neighbourhood levels contribute to the rate of recovery of HBEs in a post-disaster situation. Therefore, the exploration reveals how human capacity in relation to education and skill, as well as the social connection of HBEs, facilitate the faster recovery of HBEs. While the main purpose is the exploration of the post-earthquake situation, the pre-disaster situation also needs to be explored, to compare both these and post-disaster strategies.

The resilience of households is the ability to recover from adversity with speed (Rakodi and Lloyd-Jones, 2002: 46). This chapter explores the various responses of several HBEs households in pre-disaster or daily life conditions and in the post-2006 earthquake situation. If several households seemed to have a 'leap back' condition of their home based enterprises, some other households seemed to lack the capability to return to their normal life as before. Some households reconstructed their home based enterprises in a relatively shorter time other households, and therefore this chapter will explore the factors underpinning the reconstruction process and the endurance of maintaining the relatively same level just before the earthquake up to now, based on the capitals of the Sustainable Livelihood Approach. Thus, the household strategies based on human and social capitals need to be explored, particularly the factors used to cope with the impact of the earthquake.

Some cases were explored earlier (Chapter 5); however, this chapter will explore deeper perspectives on human and social capital, as the previous chapter merely depicts general or specific strategies of households related to recovering their home based enterprises as impacted by the earthquake, based on all the SLA capitals.

This chapter is divided into several sections; first, there is the human capital perspective in the terms of skill, knowledge and education. Secondly, the concept of social capital is presented alongside the variation in the relationship between people in Kasongan, showing both their pre-disaster or daily life situation and post-disaster situation. In some cases, the current relationship in daily life or pre-disaster situation leads to a more intense relationship in the post-disaster situation, so that is why the pre-disaster circumstances become a part of this chapter. The next part looks at the inseparable capitals particularly of human and social capital, in which both the individual and neighbourhood levels affect each other. Then, the last part is the concluding remarks, which explore philosophical thoughts in relation to knowledge as part of human capital, which leads to the next chapter.

7.2. Human Capital: The Coping Strategies

According to Becker and Schultz (in Lin (2004) and Stanfield (2009), skill, education level and knowledge are the factors of human capital (see section 3.5.). This part analyses the Kasongan households' condition and strategies based on human capital indicators, particularly related to education level skill and knowledge, in how to make ceramics and managerial capability, and lastly the strategy in investing education for their children in relation to face adversity in the future.

7.2.1. Skill and Education Level

7.2.1.1. Education Level and the Types of HBEs

Education level is one of the most important indicators of human capital (Schultz and Becker in Becker, 1993; Lin, 2004); this is due to the schooling process, which gives new knowledge and competence including problem solving skills as well as physical attributes and dexterity (OECD, 2001). This section explores various cases of the level education and its impact on the capability of the entrepreneurs in dealing with the adversity of the business circumstances, included in the post-earthquake situation.

A. <u>High Level Profile of HBE Household with a Higher Education</u>

Pak Timbul had the highest education level, as he had his doctoral degree and also he was a lecturer at an art institute in Yogyakarta. He started his ceramic home based enterprise from the lowest level, and he also sent ceramic products to Surakarta around 60km from Bantul Yogyakarta, by motorcycle with his wife. His wife, a former staff in a hotel, who had graduated from a tourism and hospitality school, could speak English well, so his wife also helped him to develop their home based enterprise, including the marketing. Then, the business grew fast, and since the end of the 1990s they had two showrooms and also another showroom in Bali. He concentrates on finishing and selling the ceramics, so it is more efficient.

From the perspective of education level, Pak Timbul had been a prominent informal leader in Kasongan ceramics since 1995, as he had become the biggest exporter in the Kasongan area with around 150 people in his workshop, and 50 subcontractors from the surrounding Kasongan villages. With the capacity to produce more than ten containers per month at the peak of business, he provided work for many people and almost all of them came from the Kasongan area. Nowadays, he has many attributes, namely as a head of the Setya Bawana Cooperative, which distributed loans from the Industrial and Trade Department of around 950 million rupiahs just after the 2006 earthquake. Also, he had been asked by the government to become the leader of the KAJIGELEM forum, in which the forum was set up in Kasongan and its surrounding area to become integrated into the spatial development of the area. Its centre is in the Kasongan area (see the map of Kajigelem plan for tourist development in section 5.2.5). Even though the forum has not been running as well as expected, the multi tasks of Pak Timbul depicts the leadership of the figure has been recognized both by the local community as well as the authorities.

The kind of strategies that they have already put into practice in relation to growing their business include: Pak Timbul's wife was a subscriber of Vogue magazine in order to follow the trends of colour in Europe. Subscribing to a worldwide magazine is very rare in Indonesia, as the price of the magazine is expensive in local currency; it could be ten times more than the local price. This shows an advanced strategy of ceramic home based enterprises to maintain their market in European countries.

In order to maintain their home based enterprises in relation to the post-earthquake situation, Pak Timbul had asked a psychologist from Gadjah Mada University for a series of sessions of consultation in relation to recovering his workers' psychological condition, which was unstable in the post-earthquake context, as some depression symptoms appeared and these affected the workers, and some workers worked much more slowly than usual, or were crying. Thus, Pak Timbul had the initiative to ask all the workers who were working just after the earthquake not to work but only to chat, but they were given wages as usual.

His education level and thus his knowledge affected his ability to manage his business. Based on interview, as well as his publication or BlogSpot, he shows his knowledge not only of how to develop his business, but also of handicrafts. He was often invited as a conference speaker in regional and national events, having a background as an artist or lecturer, to motivate and inspire people to develop their business. Not only on the national or regional scale, for the Kasongan people, Pak Timbul had also become an informal leader to facilitate and inspire Kasongan ceramic HBEs to maintain and grow their business. Indeed not only his education background, but also his leadership and entrepreneurship had made him an influential person in the Kasongan area. This education background and his knowledge helped him to make strategic decisions such as contacting a psychologist or communicating with his relations or customers in Italy to ask for help for his local workers.

B. Another High Level Profile HBE Household with a High Education

Pak Subur is from different era to Pak Timbul. He had been a prominent informal leader of ceramic home based enterprises in the Kasongan area since the 1980s, and Pak Timbul had become an informal leader since the mid-1990s. Pak Subur was a pioneer exporter of ceramics in the village. As the first person to access a cable telephone in that era, he was supported by UPT/Balai Kasongan to export ceramic products overseas. His wife is local, and Pak Subur himself had graduated from university and became an informal leader, as he worked also as a manager in a milk factory, Sari Husada, which is a relatively prominent industry in Yogyakarta.

Pak Subur has another strategy in relation to maintaining and even widening his business. He not only asked for help to promote his ceramic HBEs, but he also said that name cards were more effective than joining a showcase or exhibition. Pak Subur also has a webpage for his ceramic enterprises. By using his link as the head of the Chamber of Commerce in Bantul Regency, he was also able to have support from a Dutch company to reconstruct his home based enterprise, particularly in the 2006 post-earthquake context.

As an entrepreneur, Pak Subur always tried to find ways to develop his ceramic HBEs, as it seem tend to decline. With a higher education level in management, as well as his experience as a manager, he tried to market his ceramics, not only by his name cards, but also to contact and inform people and using his webpage.

C. Middle Level Profile HBE Household with Secondary Education

Pak Bumi has a background of secondary education level. He lived in proximity to his brother and sisters' houses, as well as his parents' house and home based enterprises at the front, side and back of his house. Pak Bumi was a busy enterprise, as he could produce ceramics for other HBEs. He was one of the subcontractors for Pak Timbul, but also he regularly sent ceramic products to other areas in Indonesia by truck. His oven was collectively used, so all the members of his extended family used his kiln. Furthermore, in producing ceramics for the local market, he frequently asked his neighbour Mbak Partinah to produce dry shaped clay, and he fired it in his oven. Pak Bumi also made ceramics by hand, and was also actively involved in all the stages of ceramic making, even though when shaping gigantic ceramics he also needed Brebes workers to help him. By a combination of producing local ceramics and also being Pak Timbul's regular subcontractor, his ceramic production remained stable. This was true even though his RT or neighbourhood area was the worst affected area in 2006, and his house had been completely destroyed. As he was one of the regular subcontractors for Pak Timbul, he was also involved in producing more ceramics in the post-2006 situation and had booming production until 2008, so he was helped by the order coming as a subcontractor from Pak Timbul's HBE. At the same time, he maintained his link to his buyer in East Java, so production has been maintained until today. With a traditional management, helped by his wife in management and also by his son, they successfully managed to produce ceramics.

Based on interview (2011), his wife also planned to ask Pak Timbul to revise the contract about the price of the ceramic products as subcontractor. The contract was from 2007 and had never been revised; on the other hand, the raw material used increased year by year, and so she felt that the profit was becoming smaller over time. Even the clay they bought had a higher price year by year, as well as the fuel price, but the profit became smaller as the costs increased while the selling prices remained stable.

This fact shows that even though they had a traditional and family based management, they understood how to produce a ceramic product and also the financial and management aspects, as they knew how to calculate the expenditure as well as the gross income, and so they knew the profit but were not able to negotiate.

From the other side, Pak Bumi stated that:

> *..I am having orders either directly from consumers or from 'juragan'(boss) and become a subcontractor for them….the cooperation is mutual benefit*...(interview, 2011)

As Pak Bumi's education level was of middle school education level, this was relatively high for many Kasongan people as many other have primary school education or are even illiterate (section 6.4).

D. A Low Level Profile HBE Household with Primary Education

Bu Supari had an elementary school background; however, her two daughters had graduated from a relatively higher school level. One was married and the other daughter had just graduated from high school with a specialization in sewing, so the second daughter preferred to work in the T shirt garment industry in Yogyakarta city.

The workers of the HBE were family member-based. Bu Supari, her daughter and Pak Wakidi worked for their HBEs, without any non-family workers. Bu Supari made umbrella pots or '*bawangan*' with her daughter in working hours, and she lived separately with her husband and daughter. Pak Wakidi, her husband, transported the ceramics directly to the buyer; around 20 animal money boxes and bawangan went to the city every weekend, for example to sell in Alun-alun, the public space, in front of the Sultan Yogyakarta's Palace during the holiday season or at weekends. On other days, Pak Wakidi moulded animal money boxes, firing them in his own oven at the back of their house, near the river, and he also finished the fired ceramics. The markets of the HBE products were local/domestic, and the good were transported traditionally by bicycle. When younger, Pak Wakidi could ride his bicyle to transport the product 20-30km from his house; however, at the time of writing he only rode to nearer destinations.

The household's strategies in daily life or pre-disaster situation were various. With her education background in primary school education, her HBE strategies were different to those of the middle or higher profile ceramic HBEs, and were not as sophisticated; she had basic

skills and accepted help from neighbours. Although her ceramic HBE was independent, as there was no link with other HBEs in the production chain or flow, or in the business, she and her neighbours helped one another. With her closest neighbours, namely Bu Situm and mbak Wagilah, they helped one another when one HBE needed to lift and put the raw ceramics into the oven. When Mbak Situm fired the traditional pan and stoves ('*kendhil*' and *'anglo'*), in the small yards nearby their house, all the neighbours including Bu Supari and Mbak Wagilah helped to prepare an arrangement of the ceramics and wood for energy. Every afternoon after work at 4 o'clock, the entire neighbourhood met to chat at big seats near the river, under bamboo plants (see figure 6.17).

The income of Bu Supari seemed only to be enough for everyday life. However, Bu Supari said that a relative significant expenditure was spent when the wedding season arrived. This is a 'good season,' as were circumcision parties, for Javanese people, so many families have traditional parties. Therefore, in peak season, a family can get 4-5 invitations to wedding parties, which means that the family should donate 40-50 thousands rupiahs for '*sosial*' or social aims. This amount of money is equal to two to three days' income. However, a person can be invited by giving a packet of food . To respond, the invited person should come and give a donation to the parents of the newlywed couple at the party event. Although the expenditure for social reasons is high for them, they can survive to support daily life expenditure, and this includes financing their daughters to a higher school level. However, with the social relationship also, in this case with her neighbour in proximity, they helped one another when one household had an obligation to host a rota and routine monthly prayer meeting, 'pengajian'. For example, Bu Supari helped Mbak Wagilah to cook snacks for the meeting.

In relation to the strategy in the post-disaster situation, educational background seemed insignificant to the chosen strategies. Instead, they relied on government home reconstruction grants to reconstruct their damaged houses. The reconstruction process was typical: emergency housing with other families, and temporary housing with triplex and asbestos roofs, and finally permanent housing rehabilitation with the help of the government grant of 15 million rupiahs and mutual help from group members, which usually consisted of neighbouring households.

With their limitation in educational background, the strategies for post-disaster recovery were also limited if we compare with the middle or higher profile of HBEs. The ceramic making was simple in the mould technique, finishing, or the marketing and transportation of these HBEs products.

E. Concluding Remarks

From both the informal leaders of the Kasongan area who had a relatively higher than average education level, we can see that the education level affected the growth of their home based enterprises. At the beginning, both of their ceramic home based enterprises were not huge,

but with their ability to manage their enterprises, their HBEs became bigger. With a relatively lower education level, Pak Bumi also showed the strategies to accept all the orders coming to him, including from higher profile HBEs, but also would negotiate the contract in order to gain more profit. The lower education level means having a lower capacity in management, including the capacity to manage and in this case to renegotiate the value of the contract with the '*juragan*'(boss) or the higher level profile of ceramic HBEs. But at the same time, as in this case, a culture of *'pekewuh'* or non-assertive action or reluctance to renegotiate in order to maintain harmony (see section 8.2.1 about a local character) with the neighbour is also part of the reluctance to renegotiate. Ceramic HBEs with a lower education level, namely primary education or even illiterate status, which is typical for a small or traditional ceramic HBE, had a limited strategy to develop their ceramic HBEs, as shown in the case of Bu Supari.

These kinds of strategy show an advanced knowledge of how to deal with the progress of his business. Without any knowledge of management, these strategies would not be present. With their knowledge and links, they had a great deal of support in dealing with the post-earthquake situation.

A study in Nairobi shows that one of the aspects that permit faster enterprise growth is human capital, including a higher level of education of the manager. Some of these findings have been confirmed in studies based on data from low income developing economies including some from Africa (Akotena and Otsuka, 2007: 589). Furthermore, several studies have detected significant growth rates, influenced by the education, gender and ethnicity of the business owner. In addition, younger or smaller enterprises develop and grow fast (Mengistae, 2006: 813).

According to Ramachandran and Shah (2007: 81), there is a clear correlation between education and size of the enterprise, as a lower percentage of entrepreneurs manage very small and small firms have university degrees than those managing medium and large firms. The study shows that a certain characteristic of the entrepreneur namely in secondary and university education is significant to firm growth.

The explanation of why such a higher level of education impacts on better firm growth is that by having a higher level of education, entrepreneurs have better managerial skills, including managing a larger number of people, the capacity to maintain accounts and records, and to access new technology (Ramachandran and Shah, 2007: 85).

7.2.1.2. Skill and Knowledge is Important in Coping Strategies

Skill formation is important in relation to gaining a better quality enterprise. According to Mayer and Solga (2008), there is a multi-definition of skills among various disciplines. The economics discipline views that skill as part of human capital and training is a part of human capital formation. Psychologically, skills formation is about the process on an individual level of how to increase their ability. Thus, the way to perceive, and how to put such a skill into every person, is the main key of the skill perspective.

More importantly, the learning and acquisition of skills and knowledge takes place from birth to death (OECD, 2001: 18). Lifelong learning also includes learning at all stages of life including "learning to learn" in the context of schools and other institutions of formal education. Therefore, this includes not only formal education, such an informal education 'on the job' and daily living, and also learning within family is part of the way to increase skill, and it also means increasing human capital (OECD, 2001:18).

This section focuses on skill, which is also important in relation to ceramic home based enterprises activity. Having skill in making ceramics is one of the most important parts to maintain or make a higher growth level in these enterprises. As a handicraft enterprise, a middle and higher scale of enterprises needs huge creativity and skill in making ceramics which not only have an artistic value, but are also luxury items. For the small and traditional ceramic HBEs, they make ceramics to be useful in daily life. Several cases depict the varying level of skill that sequentially can affect the resilience of home-based enterprises in adversity, including in the post-earthquake situation. However, the skills are not only limited to ability and skill to make, but also include managerial skills.

A. Managers with Low Skill Levels Relied on the Skill of Workers

The case of Pak Pur seems to be an example of how a struggling home-based enterprise became a resilient HBE post-earthquake (see Appendix D). Pak Pur previously had a successful home-based enterprise from the perspective of the capacity of production and the number of workers. As the business started in 1992 and then increased production capacity by having a link with a prominent exporter, Pak Pur had his peak business time by producing ceramic products to the amount of a quarter of a container per month. In that period, Pak Pur had 15 workers, but then adversity came and his main buyer went bankrupt and stopped buying his ceramics in huge amounts. Even though Pak Pur was also a subcontractor for Pak Timbul, the loss of one main buyer hit his business significantly. He also tried to rebuild his business by having a bank loan before the earthquake of 20 million rupiahs; however, after 50 million rupiahs' worth of ceramic products were prepared, they were damaged in the 2006 earthquake. After that he needed another bank loan to reproduce more ceramics. One potential profit came from a sample demand to be sent to Italy to the value of 10 million rupiahs. However, then the export destination was also hit by an earthquake, and consequently the potential buyer then cancelled the demand.

According to his former worker and also his neighbour, he was in a very difficult situation, and also worked as a labourer, a '*buruh angkut,'* or a person who works as a transporter by hand or handcart for other businesses. In an interview, his wife said that he relied heavily on workers with high skill but low education level from Brebes, another part of Indonesia that is also well-known for highly skilled ceramic shapers, particularly large ceramics. Therefore, as he was a manager without any appropriate skills to produce ceramics himself, when adversity came and he needed his own hand to produce ceramics, he was unable to deal with this condition. Then Brebes workers needed to be paid, so Pak Pur had to spend extra money. Thus, it is

tremendously significant that he could not produce ceramics himself, and so had to spend extra money unnecessarily.

It was a different situation for Bu Sedep (appendix D), who previously produced only traditional ceramic kitchen utensils and animal-shaped money boxes. Even though she clearly had a lower production capacity than Pak Pur and in the peak period of her business only had three workers, she was a skilled person. Her husband was one of the workers for Pak Walijo's home-based enterprise, producing white ceramics, and he always helped her to finish the ceramic process, and to transport the ceramics to the Yogyakarta city centre area, such as in Gembiraloka Zoo or Malioboro Street. At the peak and booming period of ceramic production, she needed help and also then employed workers to meet the demand. However, she moulded by her own hand both medium and even huge, tall ceramic products up to two metres in height. When the boom in ceramic products ended, she adapted by returning to the production of such traditional ceramic kitchen utensils and animal-shaped money boxes. She was able to produce these ceramics herself.

In sum, the difference between Pak Pur and Bu Sedep was in the skills of being a home- based enterprise operator making ceramics by his/her own hand. As Pak Pur could not, he was unable to produce even simple traditional ceramic products. However, it also seems that there was some reluctance by Pak Pur to produce ceramics because these simple forms were produced mainly by women. Unfortunately, his wife also could not make ceramics.

B. Experienced and Skilful Persons

The story of Bu Tumilah shows a different picture. She was a worker for Pak Pur for several years, and then she started her own home-based enterprise with her daughter and husband. Her daughter Mbak Atun helped to mould the ceramics while her husband helped her with lifting the raw ceramics into or out of the oven, and also with the firing process. She had continuous orders and therefore was always busy with the ceramic production process. She said that they always tried to maintain a high quality product.

Before the earthquake in 2006, they made a finished, painted version, but afterwards they only made unpainted ceramics, as they had already an abundance of orders coming. They had even rejected some orders, as they were afraid they would disappoint the *'juragan'* (buyers who own the showroom alongside Kasongan main road) due to limited capacity in production. Their skill was well-known and they were confident with their quality of product, and indeed their products were in demand. Skills, therefore, are one of the important factors of human capital in the context of resilient home-based enterprises in the post-disaster situation.

Therefore, skills related to personal production is one survival strategy of ceramic HBEs in adversity. Without proper skills capacity, a person relies on other people. Furthermore, when there is no capital left, particularly financial capital and also access to a market, the person is in a vulnerable situation.

C. Confirmation of The Skill of Kasongan People

Based on an interview with Nugraha, a researcher in 2011, who has a research about Kasongan, once Pak Timbul mentioned that he believed in the good capability and capacity of the Kasongan people in ceramic making, and thus he appointed the quality supervisor's position in his business only to Kasongan people. This seems that the skills of the quality control supervisor from the Kasongan people were prioritised, as they knew precisely the quality of the ceramics from the sound produced by knocking the ceramic product. The feeling of good ceramic products from the sound produced is credible evidence of the excellence of the skill as performed by the Kasongan people: they can differentiate the proper thickness of the ceramic product, particularly with huge and tall, or 'gigantic' ceramics. Improper thickness of ceramics produces vulnerability, for example it can be easily cracked when it is exported overseas. Therefore, fired but unfinished ceramic products which needed to be painted or decorated by Pak Timbul HBE's workers were sent by Pak Timbul's subcontractors from Kasongan areas were all checked by the quality control supervisor. If particular ceramic products did not pass, they would be sent back to the subcontractor, who would not be paid. Such a mechanism greatly relies on the quality controller; however, it is widely accepted by the subcontractors, who are also Kasongan people.

D. Concluding Remarks

From all the above cases, Pak Pur showed a lack of skill both in his personal ceramic making ability and his managerial ability to manage his ceramic home-based enterprise. The OECD (2001: 18) reports that unlike physical capital, human capital is embodied in individuals. Also, human capital grows through use and experience, both inside and outside employment, as well as through informal and formal learning. Pak Pur had not used his experience to acquire better human capital, in terms of better quality skill in making ceramics himself, but instead relied on his workers. Also, he was not able to manage his financial burden, as when several adversities arose, including the earthquake, he could not sustain his ceramic HBE, and became trapped in debt. In contrast, his former worker, Bu Tumilah, was skilful at making good quality ceramics and she managed her own small ceramic HBE well. Thus, the concept that skill is important in dealing with human capital is confirmed by this case. The fact shows that, even though the level of education seems the same between Pak Pur and Bu Tumilah, Bu Tumilah had better skill in making ceramics, so her ability to survive and adapt in the face of adversity seemed better than Pak Pur.

Pak Timbul as a manager of a high profile HBEs who always used Kasongan people in certain position shows that the skill of Kasongan people is high in general. On the other hand, it also could be affected by the subjective perception, as Pak Timbul originally comes from Kasongan. Hence, the same originality could affect the perception and thus the preference to hire people. In doing so, it has confirmed one of the social capital indicators in the bonding principle of Nan Lin (2004), in that one of the principles is having a strong relationship due to having the same origin. This bonding will be explored more in section 7.3.2.

7.2.1.3. Higher Investment in Education as Capital for Future Needs

This part depicts the strategies of households in relation to investment in education for their children. Interestingly, although the strategies from the households seemed the same in the effort put into a high investment in education, the result was different. When the children were not willing to pursue a higher education level, the parents could not invest for the future.

A. Failure to Invest in Education and Decreased Ceramic HBE from the Previous Condition

Pak Pur seemed to have a lack of investment in education for his children. He had three children, and the first son had not finished secondary art school, which is vocational education. His son withdrew from the school in the first grade of this vocational high school, as he thought that he could not study and pursue the formal education system. Even though for the registration and tuition fee payment purposes the mother had already borrowed money, when the son asked to withdraw from the school, the parent could not reject the request. The other two daughters were much younger, but when the second daughter wanted to get a higher school education, as their home-based enterprise was declining, the parents were only able to send their second daughter to a higher education level, but not to university. Then, the third child, a daughter, was in primary school. However, the son had become a worker for another HBE. From the story, Pak Pur had a low capacity to invest in education for his children even though he had already tried. Pak Pur also had an elementary school level of education, so it seems he had the same level as his children, even though the first son was a little better educated, to junior high school level.

B. Investing in Higher Education for Her Children

A different story comes from Bu Suparmi, the neighbour. A more complete story is described in chapter 6. The family had a unique strategy, with their choice to invest the proceeds of selling the family car in rebuilding their house after it was damaged post-earthquake, and in buying a cow. By selling the calves, the cow breeding activities significantly contributed to financing their son's and daughter's education, namely university level, and also for the daughter to pursue vocational education in Yogyakarta City.

C. Investing in Higher Level of Education

Mbah Temu, with a low post-2006 level ceramic HBE, decreased from the previous condition as detailed in chapter 6, had several daughters and sons (section6.5.3). She successfully gave all her children a middle school level education, and one son went to university but unfortunately could not finish. However, this shows that the children of Mbah Temu definitely had a better education level rather than their parents, who were illiterate. In one interview in 2011, the researcher found one of the daughters helped the mother to shape traditional ceramics in their workshop. She was in junior high school, a state-owned religious based school, *madrasah tsanawiyah*, which is a good quality school hard to get into. From this point of view, the daughter was smart and also willing to help her parents in ceramic making.

By viewing that Mbah Temu tried so hard to give all her son and daughters a better education even to the highest level, Mbah Temu successfully invested in the education of her children. Even though this HBE household had a peak of business several years ago, it later became bankrupt. Although their HBE was not as successful as before, the children coped with the condition, and with their educational qualifications. Some of the children had married and were still living with their parents in the same house, and all the married children had jobs. One of the daughters had been working for Pak Timbul ceramic enterprises as administrative staff as she had graduated from economics secondary school (SMEA).

D. Investing in a Higher Level of Education: Another Case

Bu Sedep, a neighbour of Mbah Temu, had similarities with Mbah Temu, as previously she had had two non-family member workers and transported ceramics to other provinces several years ago. But now this had decreased (see Appendix A). Bu Sedep had two children, and the older stayed home as she was a disabled person, so she helped her parents with simple jobs, for example firing the ceramics in their backyard. The second child, a married son, stayed with his wife and family in another village, but visited almost every day in the afternoon. The son worked as a salesman for an enterprise, but in fact, like Mbah Temu's son, he had been in university but left in the last semester before finishing his degree, due to marrying and needing to look for a job, as he could not also pay the tuition fee. He preferred working for his new wife and daughter rather than graduating and getting a bachelor degree.

At this point, the families of Bu Sedep and mbah Temu had put a huge investment into the education of their children, as university fees are expensive, particularly when the children go to private university, as both their sons did. This is in contrast to Pak Pur, who was not successful in investing in the education of his children, even though he tried.

E. Concluding Remarks

This investment in education was not directly related to the recovery of home-based enterprises in the post-disaster situation, but it may increase the adaptability of the HBE households to future adversities, particularly relating to the household capacity to generate income. When the HBE households heavily rely on ceramic making or associated activities, the household can have difficulty when ceramics are not popular or there are many competitors from other materials such as plastics. The example of Bu Sedep and mbah Temu, who invested in the education of their children, shows that their children got better jobs with better wages and an income on a regular basis. Quoting from an OECD report:

> *'….school effects on achievement are greater than family background influences within impoverished settings….* (OECD, 2001: 22).

Therefore, school has an effect on achievement and success in adversity, presumably in relation to the need to maintain a business related to ceramic making, regardless of the family

background. If the ceramic making becomes less popular then before, by having a higher level of education their children have many options to work, not only in ceramic making. It is a dilemma and also a contradictory situation as the sustainability of ceramic HBEs in the Kasongan area cannot be reached when the new generation is unwilling to continue the ceramic enterprises. Due to a higher education level, the new generation has other options for employment rather than making ceramics, for example becoming a salesman. Even though the ceramic industry in Kasongan has existed for generations, it could be threatened as many of the new generation will not continue the ceramic HBEs. However, the cases do differ, as for example with the son of Pak Marwan, as a university student, tried to help his father's HBE by making a webpage and using Facebook to deal with marketing activity.

In Indonesia, higher education needs household investment, not only from the government perspective, and so almost all the households seemed to have this kind of strategy. However, from the perspective of government, there is also a responsibility to provide certain types of education services, as has been learned in Africa. It was stated that…

> *Thus, investment in education, including higher education, may serve a very useful purpose in terms of generating employment in the industrial sector in Africa……Further research into these issues will help us better identify the determinants of private sector development in Africa, the types of education services that are most useful, and the means by which education services can be targeted toward those who need it most* (Ramachandran and Shah, 2007: 86).

Indeed, investing in better education makes the children have better options to acquire income when adversity comes, but it may also threaten the sustainability of ceramic HBEs as well. However, this threat has not reduced the importance of education for better generations to adapt and cope with adversity. This includes adversities related to maintaining ceramic making activities, when the new generations still have a willingness and passion to make ceramics.

7.2.2. Conclusion: Skill and Education and the Response to Disaster

In summary, human capital, particularly education level, skill and knowledge, affect the types of the human strategy. A lack of skill, knowledge and education seems to be weak in response to disaster or other adversities. Furthermore, investment in the education of children by the households as a part of the household strategy may contribute to coping with upcoming adversities. Better skill, knowledge and education tend to produce better strategies to tackle with problems, not only the adversities of life but also the continuation of the ceramic business.

From the human capital perspective, social capital will be explored in the next section. This is also the dominant capital which affects the emerging resilience or recovery in the post-disaster context.

7.3. The Contribution of Social Capital

This section provides an analysis of the social capital in the Kasongan area by the exploration of the types of ties or networking in the area in relation to daily life or the pre-disaster situation and post-earthquake context. The reason to explore the daily life situation is that it seems to be the foundation and basic action in the post-earthquake situation. Existing social capital, particularly in social relationships, thus were used to support the reconstruction. Bonding, bridging and linking are the type of ties or relationships noted in the first part of this section, and then the structural position over time or the structural household position changes to provide a description of the resilience of home-based enterprises. Then, the result of actions of the relationship will be explored in the next part. This shows the consequences of the relationship, ties or networking. In the last part of this section, the negative aspects of social capital are explored to provide not only the positive side of social capital, but also the negative side, as this problematic sides occurs also with social capital ((Field, 2008).

7.3.1. Social Relationships: Bonding and Bridging

The ties or relationship can be from bonding, which tends to happen with those of the same group, background, lifestyle, or income level. Also, it occurs between family members. According to Lin (2004), bonding is a close relationship with homophily, which is in strong ties, as those who are bonding can meet easily and frequently. Bonding social capital tends to reinforce exclusive identities and maintain homogeneity (Putnam, in Field (2008).

On the other hand, bridging is a relationship across groups, with different levels of group, and background, and as Grannovetter and Harvey (2008) suggest, it is a part of how weak ties bridging social capital tend to bring together people across diverse social divisions. Each form is helpful in meeting different needs (Putnam, in (Field, 2008: 36)). Therefore, the next chapter will present the types of bonding and bridging that became prominent factors in relation to reconstruction and thus recognizes resilient home-based enterprises.

7.3.1.1. Informal and Formal Bonding: In Pre- and Post-Disaster Circumstances

This part explores one of the forms of relationship in bonding, which is a relationship between people who are 'like me,' meaning that people live with the *same social class or the same positions, and this is developed by the sentiment-interaction*-activity hypothesis, as noted by Homan (in Lin (2004). Bonding, thus, can be formed in family relationship or with neighbours with relatively the same background in wealth, reputation, power and lifestyle (Lin, 2004).

Bonding can be done both informally, which means that in daily life the strong ties are among neighbours, or formally, organization or in a form of a group. On the informal side, this includes daily chatting in a certain public place to '*gotong-royong'* or mutual help activities, as explored in chapter 5. From the formal perspective, an organization such as a cooperative is one example of a 'built up' relationship of bonding. A part of strong ties is the next part (section 7.3.2 B).

More explanation is now given of how social capital works, particularly in the exploration of relationships between persons from Kasongan and 'outsiders' who contributed to building resilience.

A. Bonding Informally between Family and Neighbours

Bonding informally in Kasongan can be classified into two types: between family members or neighbours on the same plot of a home-based enterprise. Bonding in the Kasongan case has been divided based on the close relationship between Kasongan home-based enterprises, even though it occurs across the income level, as the bonding and bridging separation is debatable, but, as stated before, the ties are strong among Kasongan people across different income levels, as the distinction between bonding and bridging is almost context dependent. For example,

> *a social group that is infinitely porous and has no conception of who does and does not belong to it cannot have much reality…….it is only by understanding the particular context within which social capital is generated and applied, that we can identify what is bonding and what is bridging. Reaching out across a street in a given neighbourhood may bridge ethnics, class or other lines; but seen in a broader context it may look like community simply reinforcing its bonds against outsiders. This* ***context dependency*** *applies whether it is at the micro level of a small social unit or the macro level of a nation state* (Lin, 2004).

Thus, in the case of Kasongan, bonding can be built on the homophily principle in the sense that there is a social relationship between neighbours with the same background or originality; heterophily also applies when there is a strong social relationship between neighbours with different income levels, for example, in the case of Pak Timbul and Pak Bumi.

1. Family Relationship in the Same Plot

Pak Giyono is son of mbah Mitro, and his sister is Bu Ijem, who is also an HBE owner. Three of them share a business place on the same plots, but in separate rooms, as Pak Giyono occupied the front space, Bu Ijem did ceramic activities on the other side of the front space, and Bu Mitro was at the back of Pak Giyono ceramic enterprises.

However, only Bu Mitro lived at the plot, as Pak Giyono and Bu Ijem had household activities in other places. Pak Giyono lives with his wife and son, with their parent in law near the HBEs, when Bu Ijem lived with her family at the back/near Pak Giyono's house.

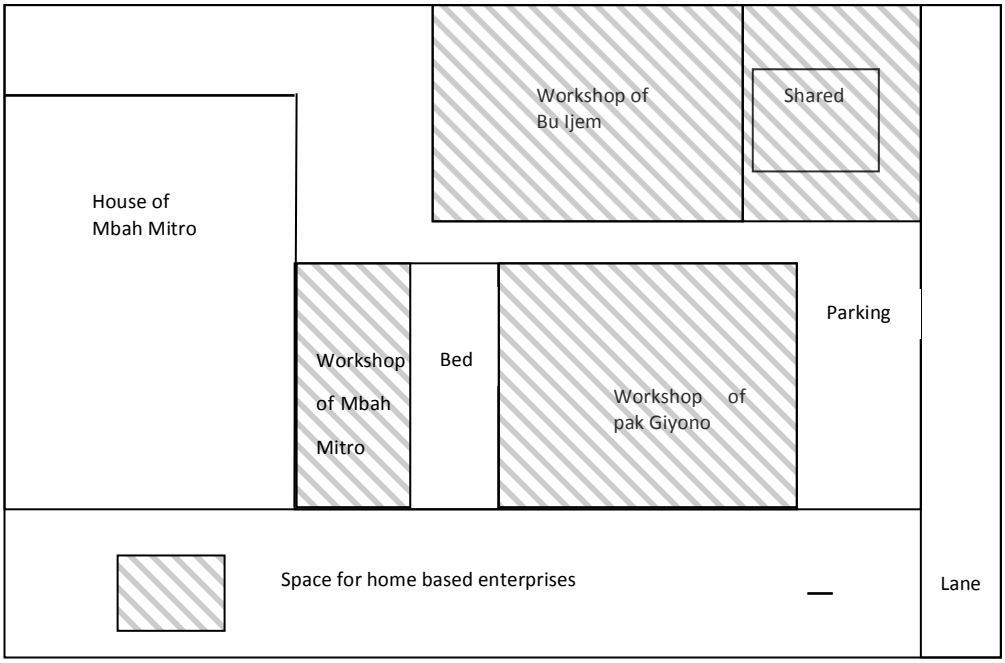

Figure 7.1 Type of Family Bonding: Space Division of Workspace of Pak Giyono Family's HBE

Pak Giyono made large ceramics, as well as '*bawangan*' or vases, while bu Ijem also made a different ceramic in the gentong and kendhil style. Bu Mitro made traditional ceramics in keren and anglo, traditional stoves, and Pak Mitro made animal-shaped money/saving boxes or animal decorations/figurines by hand. All of them fired the raw ceramic in the same oven, in front of the HBEs.

For Pak Giyono, the condition just before the earthquake was better than nowadays, as there were many buyers. As other ceramic HBEs, after the earthquake, all the HBE activity stopped, and the damage was major as he received the maximum grant for housing rehabilitation.

Pak Giyono had a SMA or middle education of high school level; however, Pak and Bu Mitro were illiterate. Pak Giyono had self confidence, and was a critical person, but also kind, as he always taught children to learn to make ceramics in his HBE. He also received students to interview and observe him, as he said that he was a student and knew how acceptance of an interview was important in getting data. Pak Mitro and Bu Mitro also readily agreed when I asked to see their work.

2. Family Relationships in the Neighbourhood Area

These three families were neighbours. They helped each other to produce ceramics as well as prepare 'arisan', a community gathering which has a rotary host each month (please see chapter 4 for details). They helped each other with many activities, so there was bonding between them. They always had conversations in the meantime at a meeting point called the

'cakruk' or terrace to discuss daily activities, and sometimes to help each other to move the ceramics from or to the oven. They seemed to have strong bonding as their houses were in close proximity

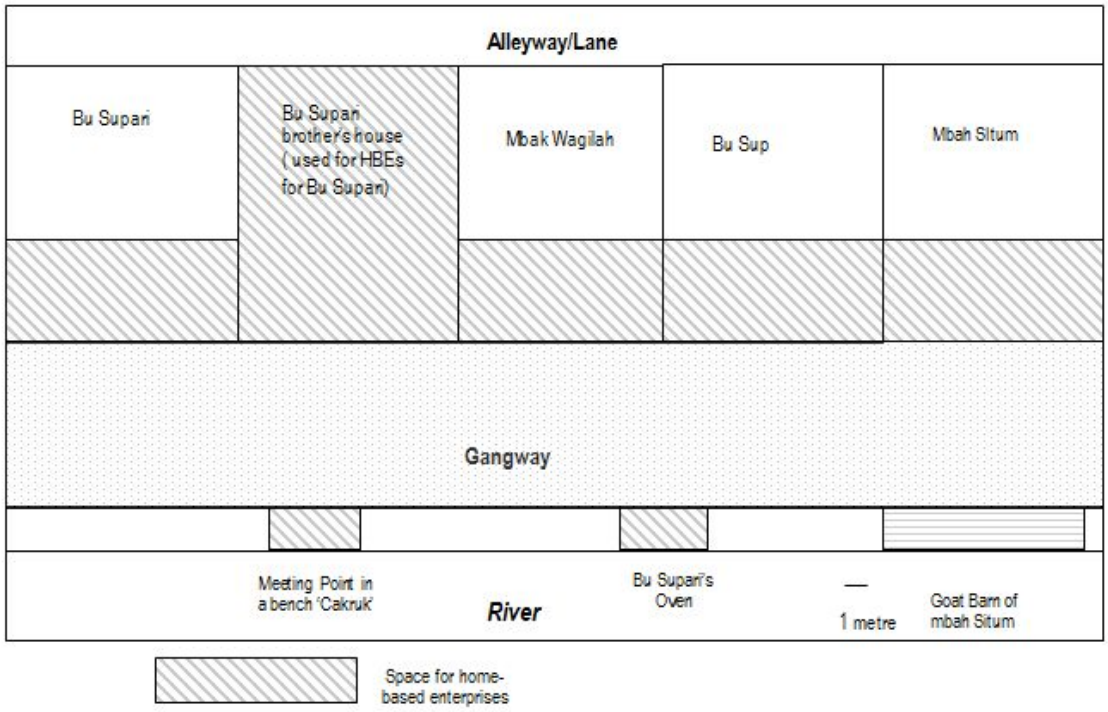

Figure 7. 2 Type of Neighbourhood Bonding: Bu Supari, Mbak Wagilah , Bu Sup and mbak Sum

3. The Link between middle and smaller entrepreneurs

Pak Bumi and Bu Wahini were next door neighbours (see section 5.4.4). Pak Bumi and his family had active ceramic home-based enterprises with one shared oven. To support his ceramic home-based enterprise, one of his subcontractors was Bu Wahini, the next door neighbour, who provided shaped ceramics, particularly for the local market. The husband of Bu Wahini also works for Pak Ponidi's home-based enterprise, and Bu Wahini also made ceramics at home, as well as doing her household tasks such as cooking, or taking care of their son. She not only took order from Pak Bumi for raw ceramics, she also had another two regular buyers of her raw shaped ceramics.

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In 2011, one of the buyer asked her to make a shaped Buddha statue, and gave her the mould and the clay; she then shaped the clay dried it, in preparation for being fired in the oven in their buyer's ceramic home-based enterprise. Pak Bumi requested that Bu Wahini shape a vase with a decoration of a rope. In summary, Pak Bumi and Bu Wahini had bonded to produce ceramics. In 2011, Pak Bumi came to Bu Wahini's house with informal clothes, as he was walking around to his subcontractor to remind Bu Wahini about his request for a number of shaped clay products for him. As a neighbour, Bu Wahini was also happy to have a regular buyer for her shaped clay. From another perspective, the relationship between them seemed like an employer and worker; however, in fact both of them needed each other.

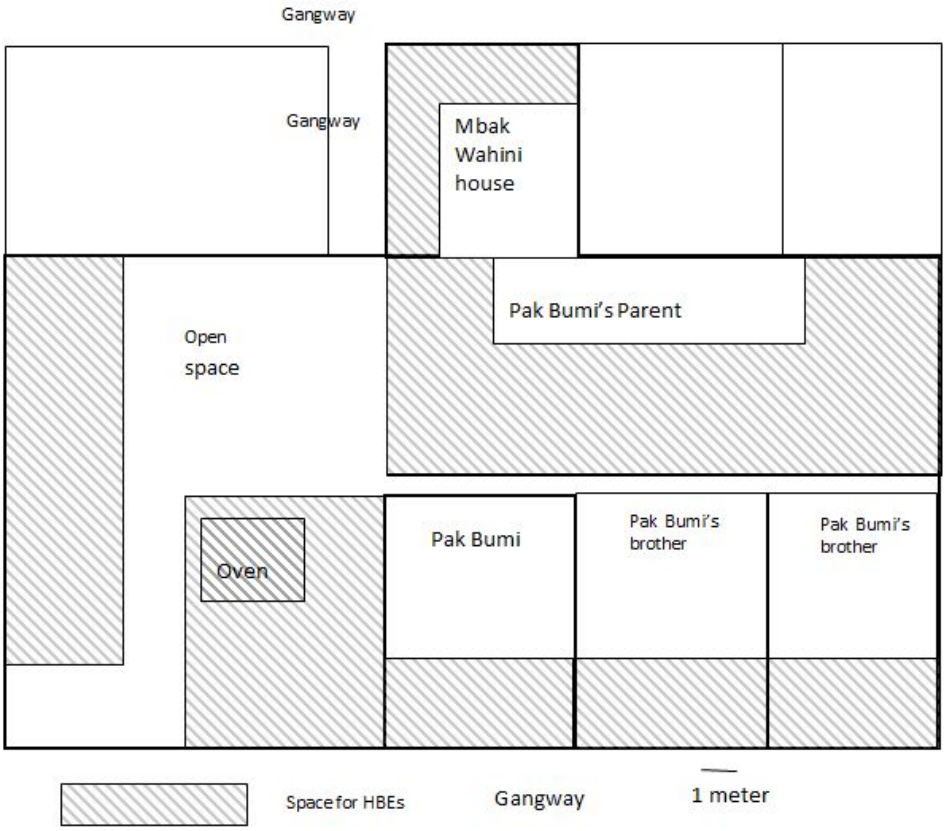

Figure 7.3 The link between Middle and Small entrepreneurs: Pak Bumi and Bu Wahini

4. The Link between a High Profile Entrepreneur and a Middle Entrepreneur

In another type of relationship, a kind of employer and worker relationship can also be found between Pak Timbul and Pak Bumi. As Pak Bumi worked as a subcontractor for Pak Timbul, particularly for the gigantic ceramics for the international market, Pak Bumi in this case had become a 'worker' for Pak Timbul. At the same time, Pak Bumi had his own customers for the local market, and in this case he was a micro-entrepreneur or employer. Therefore, Pak Bumi was an employer and worker, and the difference was only the market segment.

Between Pak Timbul, Pak Bumi and Bu Wahini, the link become clears as there was a production link between the three, even though the link was not a direct one and the markets were different (figure 5.16). As stated before, the link between Pak Timbul and Pak Bumi was based on international market demand for huge and tall, or as they called them, 'gigantic' ceramics; on the other hand, the link between Pak Bumi and Bu Wahini was based on local market demand. However, all of them live in Kasongan and they help each other.

Their relation to a subcontractor is based on trust (Nan Lin, 2010). Even though in the case of Pak Timbul and Pak Bumi there was more than 'trust' as a 'modern' approach was practised by this modern company, for example through recognition of a contract to bond between Pak Timbul and the contractor, with a fine for whoever could not fulfil the order as scheduled in the signed contract. Another example of modern management is the mechanism of quality control to check the ceramics sent by the subcontractor, and low quality products or those not meeting the contract specifications, for example the dimension or the thickness of the ceramic products, were sent back to the subcontractor without any payment. In this way, changes had been applied to the Kasongan village from the traditional perspective which was more flexible than the modern, more competitive, approach. Pak Timbul had a contract with a buyer overseas, and he faced losing the buyer or not being paid if his product did not meet the specifications stated in the contract with the overseas buyer. This change shifted Kasongan from being a local village with a local product to being internationally known for its products. In the case of Kasongan, globalization has played a role since the 1980s (Raharjo, 2009a).

A more flexible link seems to have been maintained in the relationship between Pak Bumi and Bu Wahini, as the bonding was informal, and based on trust. Furthermore, there is the structure and the relation of three levels of HBEs, as depicted in figures 7.9 and 5.16. The relationship seems to have been in place in daily life even before the earthquake context. In the beginning, as the traditional ceramic were the main products of the Kasongan area, it was mainly done on a household basis, so it was unnecessary to ask other family members or households to make the ceramics for them, as every household had its own market. With a bicycle, they went to traditional markets ten or even a hundred kilometres from Kasongan village to sell their ceramic kitchen utensils to the sellers in the traditional markets, or directly to the households they found along the way. As the ceramic enterprises had become well-known both for the local tourists and the overseas market, such a mutual relationship among Kasongan families became popular, as the households' capacity was not able to meet the

demand. However, some other households still maintained the traditional way of producing and selling their ceramics.

Furthermore, a daily relationship between the ceramic home-based enterprises concerning production was maintained, and became even stronger in the 2006 post-earthquake context. The disaster triggered sympathy from the outside, both from people in Indonesia, and internationally. The example on the support coming from the buyer of Pak Timbul also affected his subcontractor, or the middle ceramic enterprises such as Pak Bumi; however, it is part of another social relationship, bridging, particularly in this chapter.

Sennett (2012) argues that cooperation in the community, across religion, ethnicity, economic condition or other aspects of background, is worth the effort to gain a better civil society. Therefore, in the Kasongan case, the cooperation between various levels of home-based entrepreneur indeed made stronger ceramic home-based enterprises in Kasongan. A high level HBE passed on some part their future orders to lower level enterprises in the middle level, who produced raw ceramics. Or some of the ceramics orders for ceramic showrooms near the Kasongan main road were distributed to inner ceramic entrepreneurs providing unfinished ceramics, like Pak Ribut (see appendix D). This cooperation in business link was therefore important for both sides in relation to sustaining the enterprise activity, which included the post-earthquake situation. A mutual benefit was acquired, as the entrepreneurs who shared the coming orders were more efficient HBEs by specializing only in the finishing process, and they needed others to do the previous processes. At the same time, the HBE who received an order as a subcontractor benefitted from producing ceramics and therefore their business could be sustained.

B. Bonding Formally through Cooperatives

The relationship between the households could be informal, but also formally bonded in a formal institution. The cooperative of KSU in RT 03/04 in Kasongan was one such formal relationship. KSU was one of the exit strategies of international aid, AUSAID, in relation to supporting the local community to achieve a sustainable livelihood. Previously, the RELIEF programme which was established by AUSAID after the earthquake or in early 2007 had many programmes to support the Kasongan area for RT 3 and 4, as the area was the most damaged in the 2006 earthquake, and almost all of the household relied on ceramic home-based enterprise activity for their household income. This programme was fully supported by local government by the provision of a space as an office in the Planning Board Office to coordinate with the Planning Board Agency in the Bantul Regency.

1. Cooperative: Formal Bonding and Trust in a Cooperative

Pak Tartono benefitted a great deal by joining the 'KSU' cooperative, as he used the showroom of the cooperative to display his ceramic product. Even though it was not his only source of income, as he received income from the sale of his ceramic products to a regular buyer who

came directly to his house, he felt that the cooperative had helped him to sell his product. His specialization was in moulded ceramic, so he tended to have orders for figurines or small statues, which is a progressing trend for orders. For example, when a cartoon film popularized on national TV Ipin Upin from Malaysia, orders linked to this boomed, and he received many orders to make money boxes in the Ipin Upin model.

His routine attendance at the events from the beginning of the RELIEF programme launched by AUSAID led to his sustaining membership of this cooperative. It was the rule of the organization that any member who could not attend routine activities more than three times would have his/her membership automatically cancelled. A series of training activities were examples of routine activities that all members had to attend.

Pak Tartono also acquired many advantages of the membership in the cooperative, as he had access to microcredit with the group's collateral. He and other members could borrow an amount of money to support their activity in ceramic home-based enterprises. In doing so, the application of the microcredit had to be clearly an activity related to ceramic home-based enterprises; for example, an amount of money could be borrowed to buy clay. All the members of the group had to sign an application form for the loan (see Figure 6.23).

This microcredit activity had been in operation since 2009. From the interview with Mbak nDari as an organizer or manager of the cooperative, the cooperative was given to the local people to be managed by them. Then, to help the organizer manage the microcredit, since 2010, the GENI Foundation, another local NGO, had been helping them with microcredit management, in terms of the distribution, selection process for the microcredit applications, and the collection of loan repayments. According to Mbak nDari, the GENI Foundation helped the organizer as the staff of the foundation did not come from their neighbourhood. This is different when the debt collectors are their neighbour, as they may be reluctant to collect the repayments. A management fee was then given to the GENI foundation for the management support for the cooperative.

2. Lack of Formal Social Capital

Pak Pur also lived in the RT 3 of the Kasongan area; however, he was not a member. Unfortunately, since from the beginning he was not invited or requested to be part of the RELIEF programme, he could not become a member of the KSU cooperative. He could not get the benefit of microcredit, even though previously he had a big capacity of production in his ceramic enterprise. When the worse condition come in post-earthquake situation because he did not join to the cooperative, so his condition seems worsen. With a cooperative support he may get a credit, or having support to market his ceramics, but in fact he is not a member of it, so he did not get support.

As the cooperatives support its members, even though this may be in small amounts, it indeed supports members to buy materials or other production factors. Despite previously having a

bigger capacity home-based enterprise, when Pak Pur was bankrupt, it would have been better to have microcredit and to restart the ceramic home-based enterprise even on a smaller scale of production, rather than work as a labourer for other ceramic home-based enterprises. Through the RELIEF programme, the KSU cooperative provided members with training in management and ceramic making, which seemed to be what was lacking with Pak Pur. Thus, joining the cooperative was important to recover the ceramic home-based enterprise activities, but unfortunately it was not possible in Pak Pur's case. Also, Pak Pur's application for a loan from a bigger cooperative in Setyabawana was rejected with no explanation. The lack of a cooperative indeed affected the recovery of Pak Pur in ceramic production. Compared to Pak Tartono, as a member of a cooperative with better access in terms of help to sell ceramics in a showroom, the cooperative clearly contributed to Pak Tartono's success.

3. Another Case of Lack of Social Capital

In the case of mbahTemu, who lives far from the RT 3 and 4 where the KSU cooperative is located, she relied on a bank loan, and then she became trapped in debt as she failed to repay the bank loan, and then she lost the collateral of half of her land, as she could only pay half of her loan. The absence of the cooperative in her neighbourhood may have been because the neighbourhood seemed a 'richer' area as the area had fewer ceramic home-based enterprises, and was dominated by newcomers of relatively higher income than those in other areas of Kasongan.

Therefore, the absence of a cooperative and thus a microcredit and support programme, which forms formal bonding between the members of the cooperative, weakened mbah Temu in the recovery of her home-based enterprise after the 2006 earthquake. Indeed, as depicted in the appendices, the weakened condition was not only due to the earthquake, but also the collapse of her HBE.

7.3.1.2. Bridging and Linking: The Faster Reconstruction

Bridging and linking are part of networking which builds social capital. While bridging is about the relationship between networks, linking is about the relationship across networks, as it involves government, NGOs or authority figures (Aldrich, 2012). Both of these relationships connect Kasongan HBE households with 'outsiders'. Even though the backgrounds are different, they have a link to support each other. In the case of bridging,

> *Bridging connections 'are better for linkage to external assets and for information diffusion' ….that can 'generate broader identities and reciprocity'* (Putnam in Field (2008: 36).

This section will provide an explanation of a type of social relationship across the regions or classes. One bridging case is the relationship between Pak Timbul and his Italian buyer who regularly bought ceramics on a huge scale. This relationship shows how even though they came from a different country, such a mutual relationship was a part of the post-disaster

recovery by helping the side that needed help. Therefore, even though their relationship seemed to be based on economic reasons of trade and ceramic purchasing, behind this relationship there was a kind reason to help each other. The linking model is the NGOs from around the world that came to help the Kasongan people to recover from the disaster. The bridging type was also part of the relationship that supported the recovery process in the post-earthquake situation.

A. Donations from Community Groups

This bridging relationship supported Kasongan HBE households, particularly in the emergency stages. In this stage, many donations from Indonesia came to the Kasongan area, from food to clothing, and even medicine. Several national television stations organized donation collections, as they did for the previous disaster of the tsunami in Aceh in 2004, when many television stations and newspapers organized donations for the victims. This kind of bridging relationship, even though a loose tie and not long term supported the recovery of the Kasongan area.

B. Kasongan people, Pak Timbul and the Italian Exporter

Another bridging type of networking also involved an international connection. The following excerpt is from the blog of Pak Timbul (Raharjo, 2009b) entitled 'Market Condition before the Crisis, in the post-earthquake situation,' and the translation is given below:

> *Post-earthquake on 27th May 2007, the physical condition of the Bantul area was massively devastated. Mr Enrico, an importer from Italy, who frequently bought handcraft ceramics of approximately ten containers per month, asked the writer two days after the earthquake, "Mr. Timbul, what can I do to help you, should I send money to you". With a brave question, the writer answered 'Give me more orders to fix our condition'. Mr Enrico was shocked and then sent another order. After several weeks, the writer had a headache as the big orders kept coming and at the same time the enterprise was so disordered.*

The relationship between Pak Timbul and Enrico is interesting as bridging is a type of relationship across the border of nations as well as cultures. It also shows how the purpose of a social relationship can move beyond economic reasons, as a willingness to help was the main motivation of the action. In addition, from the interview in 2011, according to Pak Timbul, a fund of 500 million rupiahs was distributed to his workers. The fund was collected from his buyers who gave funds to his workers to reconstruct their houses. Pak Timbul said that he gave all the contribution of his buyer to the workers, as he said there would be no '*ngrejekeni*' or blessing if he did not distribute the fund to his workers well, as the fund was not his to own.

From the interview with Pak Timbul in 2011, Mr Enrico was just one donor. From the point of view of the Kasongan people, the workers of Pak Timbul, received bridging support from

several outsiders to aid in their recovery in the post-disaster context, through the intermediary of Pak Timbul. Therefore, bridging in the case of Kasongan was with outsiders.

C. NGOs Roles in Post-Disaster Recovery

This linking of social capital helped the recovery of the ceramic HBE households in the recovery stages. RELIEF, an NGO which was part of AUSAID, provided livelihood support in the post-earthquake situation. By supporting with a programme of capacity building for the Kasongan community, particularly in certain neighbourhood areas such as RT 3 and 4, the exit strategy of this NGO was to establish a cooperative for the HBE operators or owners in these RTs. In relation to social capital, this NGO is an example of one form of bridging, as the support came from outside the Kasongan area, even though it was international support (Chapter 6, section 6.7).

Whether the networking in the post-disaster recovery in Kasongan ceramic HBEs includes bonding, bridging and linking, this study focuses on the social relationship or networking in bonding and bridging, and not in linking, which is across vertical gradients (Aldrich, 2012).

Table 7.1 Social Capital of Kasongan HBEs

Social Capital	Characteristics	Types
Bonding	Within networks (among their own community)	• Informally between family relationship, neighbours and among different levels of ceramic HBEs • Formally through cooperative
Bridging	Between networks	• Community group through donation • Exporter or individual international helpers
Linking	Across vertical networks	NGOs and government representatives

Bonding and bridging are important factors to provide support for post-disaster recovery. Bonding is a social relationship within networks, in this case the networking of the same or various levels of social class of Kasongan's ceramic HBE households; bridging involves networks of Kasongan people with non-Kasongan people, in this case a community group from other areas, or even a person who was concerned to help ceramic HBEs in the post-disaster situation (Table 7.1)

7.3.1.3. The Separation of Bonding and Bridging is Blurred

The bonding between Kasongan people of various classes, and bonding and bridging, complement each other among the Kasongan people. In addition, linking is also important, This is shown in the blog of Pak Timbul (Raharjo, 2009b) and the translation as described below:

> *In ten months, productivity increased and then productivity was at maximum, as the writer expected. The market had more opportunities and in 2007 increased sharply, and was dominated by the markets of Europe, America, Canada, Australia and Korea. They looked to spend their money due to the quality of Kasongan's ceramics in art and were able to attract foreign consumers to collect and put the ceramics in their houses. They appreciated the handicrafts as high quality and of artistic value. With the earthquake, the response and support of the government in recovery efforts was very good. The effort to support the Kasongan people in restarting the HBEs was made. By considering that the obstacle to production due to the earthquake was removed quickly by the Kasongan people…..*

Based on his blog and also the interview in July 2011, Pak Timbul confirmed the condition of the Kasongan area after the earthquake. [This blog describes the situation after the earthquake]:

- High profile HBEs (exporting HBEs like Pak Timbul's and several others) were not affected in terms of production as the demand was stable, and it even increased as the international market and demand was not affected. This means that subcontractors like Pak Marwan, Pak Bumi and other subcontractors also increased production, even just after the earthquake. When the global economic crisis came it was another matter.
- The support of the government was recognized, as it supported the Kasongan people to recover their HBEs. But, in relation to the post-earthquake situation, the Kasongan people themselves had a strong commitment and quick response to the demands of the market.

Furthermore, cooperation between HBEs across types seemed to be in the concept of clusters (Cooke, 2002, p. 11). Clusters are an interrelationship between industries in the value chain who produce any kind of product by providing the raw material activity to a ready to market product activity.

There is also social capital, as trust and networks in learning economies were developed in the Kasongan area. Such trust between HBEs of various economic backgrounds was based on the belief that the Kasongan people are gifted with a sense of art which could not be possessed by other people, even those from Brebes who usually worked to shape gigantic raw ceramics. This trust in their own people became an important part in building a strong relationship between them.

The separation of bonding and bridging can be contextual, depending on the case (Schuller, 2007). Moreover, as the Kasongan people have strong ties, even though several people seem to have higher incomes and have become landlords, for example, they feel that they have the same origin so they have a strong bond. As in the case of Pak Timbul and his subcontractors, where they seemed to have a different class or level of income, they had no bridging relationship, only bonding. As Pak Timbul said in interview, he felt more confident about giving the quality control position to a Kasongan person rather than to other people. Even though

these are loose ties, the Kasongan people felt comfortable with their social relationship. This phenomenon confirmed the bonding and bridging capitals concept of Schuller (2007:16). Among the Kasongan people there was a bonding relationship which indeed contributed to the recovery of their home-based enterprises through the self-help group, and cooperatives. Furthermore, the social capital is inside the Kasongan area, and thus this is related to the bonding concept, so it confirms to the Social Capital theory of Lin (2004) in terms of the heterogeneity of Kasongan people, such as income level, upper reachability, and extensity. The various types of class, and also the opportunity to reach the upper class, as can be seen more clearly in the next part, and also the extensity of the relationship, are shown in the post-earthquake context by the various means of support through this relationship.

Therefore, this bridging came from various relationships, starting from the local to a global scale. Furthermore, with long term of reconstruction, bonding was more dominant than bridging, as the dominant relationships supporting the recovery of the Kasongan area came from the Kasongan people. Trust was the important part of the relationship. Trust was formed in bonding and even bridging, by giving donations and support to the victims, as depicted in the previous part. Linking seems more clearly differentiated, as it is more authoritative through the role of institutions and NGOs or government representatives.

According to Lanzara (1983), an ephemeral organization in such an extreme event as that which happened in Italy after the earthquake in the 1980s shows the 'informality' of the organization of the community in a post-disaster situation. In doing so, a well-structured organization seems absent in a post-earthquake situation, which was also true of Kasongan. However, such existing 'informal' bonding relationships between the Kasongan people triggered a fast recovery, by helping each other.

A. Social Bricolage: Bonding And Bridging is Important in the Emergency Situation

Johannisson and Olaison (2007) argue that social bricolage, or the social mosaic, describes the various types of social relationship which acted as some of the keys to success in response to emergency and crisis situations in Gudrun, northern Sweden, in 2005. Five days after the storm, and massive damage to infrastructure in particular, economic activities in Gudrun stopped. Both bonding and bridging were the keys to the response to the crisis; however, bonding or strong ties had more genuine strength as the collective social capital emphasised solidarity and thus action when it was most needed. In the Kasongan case, both bonding and bridging were ways to recover the area. However, unlike the Gudrun case, both the bonding between the Kasongan people and bridging with weak ties involving other people from outside Kasongan contributed significantly in the emergency situation. By providing emergency facilities and utilities such as food, clothing, blankets, and even tents and housing materials immediately after the earthquake, even from other countries, shows that the bridging relationship was not only based on information but also on materials and goods very useful to

the Kasongan people's recovery. Furthermore, as stated before, in the longer term reconstruction period, bonding became dominated by trust.

B. Trust as An Important Basis of The Relationship

The relationship of bonding and bridging in Kasongan is depicted in figure 7.4.

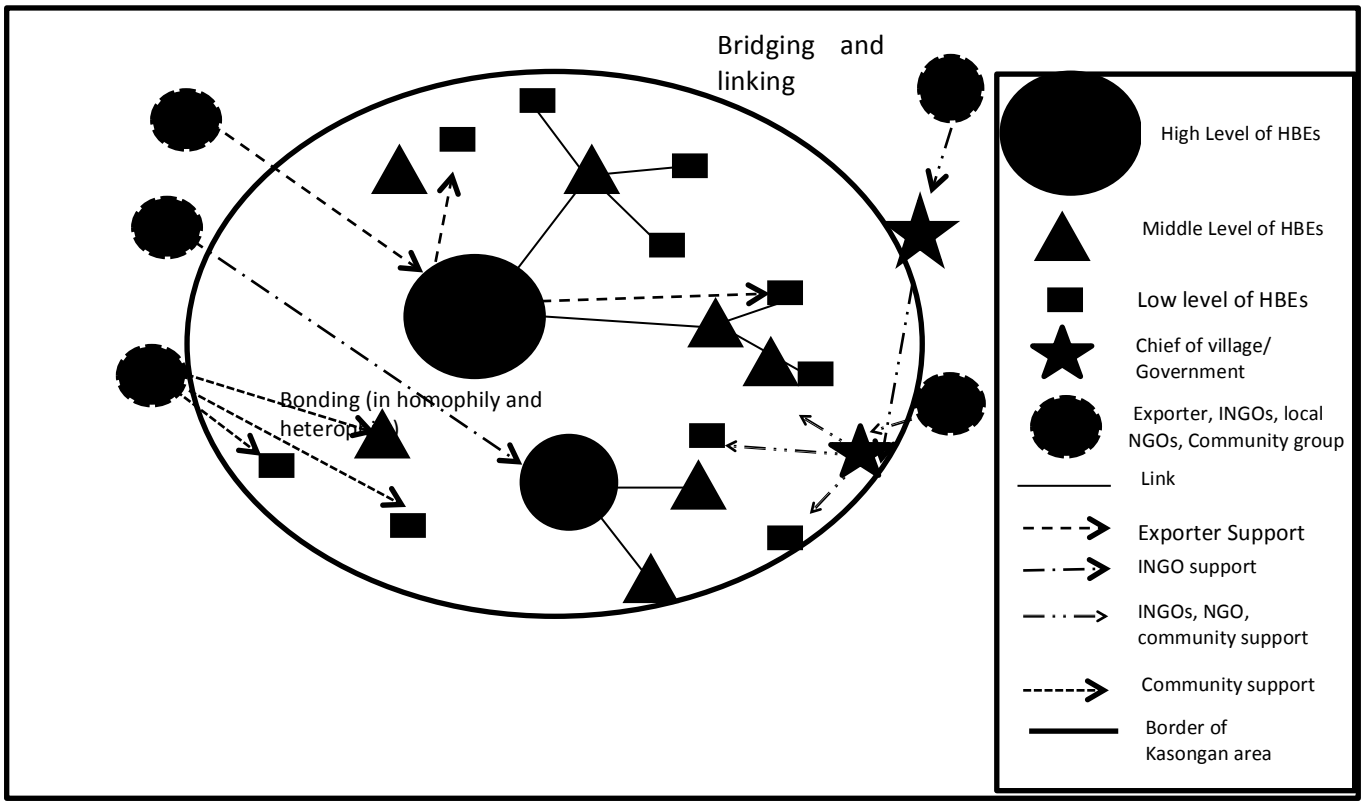

Figure 7.4 Pattern of Bonding, Bridging and Linking

Bonding and bridging in the Kasongan area was strong, so it became one of the most important factors of the resilience of HBEs. For example,

> *A unit that has high levels of both bonding and bridging would presumably be secure in its own identity and internally cohesive but manages this without closing itself off to new ideas and acceptance of others' values (Schuller, 2007: 16).*

Bonding and bridging secured the internal identity, and at the same provided beneficial contact with others, including international support, and a faster recovery of HBEs in Kasongan.

7.3.2. Understanding The Structural Changes in Households Over Time

This section is an explanation of the changes in households over time in order to show the level of resilience in the post-disaster context. According to (Lin, 2004), the kind of structure is

one of the main social capital components. The movement of 'class' or the position of a household is assessed using structural analysis. This section explores the types of improved condition and also stagnant or even worsened condition just before the 2006 earthquake to the post-earthquake situation, up to 2011.

7.3.2.1. Improved Condition of Structure

Pak Tartono had started, just before the earthquake, to make his own ceramics in the house of his father in law. At the time of the earthquake, his wife was heavily pregnant with their son. His wife gave birth when her leg was broken as the ruin of the collapsed house hit her leg. As the earthquake destroyed wide areas, emergency medical services were not able to cover all the victims, including Pak Tartono's wife. With the pain in her leg, she gave birth and it became a topic of conversation for Kasongan people. Pak *Kadus*/chief of village also mentioned in the 2011 interview about the mother who gave birth with a broken leg.

After the earthquake, Pak Tartono worked for his uncle for nine months, but then he tried to start his own home-based enterprise from his home near the bridge. With the support of the cooperative, he was in a better condition even after the earthquake. He was the young head of a family who started to have its own ceramic home-based enterprise, supported by his wife. Pak Tartono's wife also helped him to make ceramics as well as taking care of their son who was already in nursery.

Bu Supari represents another household which was also in a better condition in the post-earthquake context, as the house was reconstructed with good quality materials. This was done using the '*gotong-royong*', a mutual help group, whose members are based on proximity. The social relationship in bonding, even though it is not always based on proximity or family members, can be determined also in the rota for the group of self-help housing. In summary, the case of Bu Supari demonstrates the social capital in relation to the reconstruction of their house in the post-earthquake situation.

Furthermore, based on the local community's perception of the role of government and community, they felt that they were supported by the government. Based on an interview, Bu Supari, a home-based enterprise owner, with her husband and one of the victims of the earthquake, explained her feeling about the role of government toward the post-disaster recovery:

> *When the earthquake hit, it damaged the house, and the front part of the house was damaged, including the rooms and the kitchen…... With the grant of 15 million rupiahs, the house has been rebuilt and the construction strengthened. In addition, they also expanded and renovated the house, particularly the front part of the house, with their own money.*

Before that, just after the earthquake, they made a house from triplex and a zinc roof, and ate from the donations for several weeks after the earthquake.

To reconstruct their house, two builders and three assistants were needed, included in a group of seven, and the owner, who worked for the reconstruction got a wage of 25 thousand rupiahs per day (taken from the 15 million rupiahs fund from government). After the earthquake, they get a 'jadup' (living allowance) of 350 thousands rupiahs per month for each household.

They felt that the grant was very useful, as without the grant, they thought that they would only have rehabilitated the house with 'gedheg' or bamboo material walls, which are cheaper materials.

They started to make ceramic by taking raw materials from the river near their house (field note/tum/ 23/06/2011).

This example shows that the government's grant enabled the household to re-establish themselves and even improve their situation as the buildings were of brick rather than bamboo. It was essential both in the effort to re-establish the house as a shelter, but also in re-establishing economic activity, in providing immediate building opportunities and subsequent space for this ceramic worker to re-establish their ceramic business (Tyas, 2013). On this point, the social capital in 'gotong-royong' was facilitated by the government and it was used and integrated into the reconstruction programme in the post-earthquake context (Gadjah Mada University, 2009; Tyas, 2013).

7.3.2.2. Stagnant and Even Worsened Condition of Structure

The case of Pak Pur shows a lack of social capital, particularly in the cooperative as formal social capital that decreased his family condition. Although the cause of the creation of non-resilient home-based enterprises could be varied, social capital clearly led to a better off condition in the post-earthquake situation. For example, people who lacked formal bonding in the cooperative tended to have low support for a faster recovery or greater resilience for the HBEs (see figure 7.6).

7.3.2.3. Structure of Upper Reachability Can Reach a Better Condition

In sociology, the structure can be represented in a diagram to view the difference in position overtime. Lin (2004) shows the changes in structure position in a certain period of time (figure 3.6.), while figure 7.6 shows the changes in the structure of households over time.

By analysing the changes in structure before and after the 2006 earthquake, figure 7.6 depicts the difference in the positions based on the HBEs' condition. Pak Pur seems to have been in e1, which is in a stagnant, even decreased, condition; however, Pak Tartono was in an

improved or better off condition, due to the involvement as a cooperative member; this is represented in e2 below:

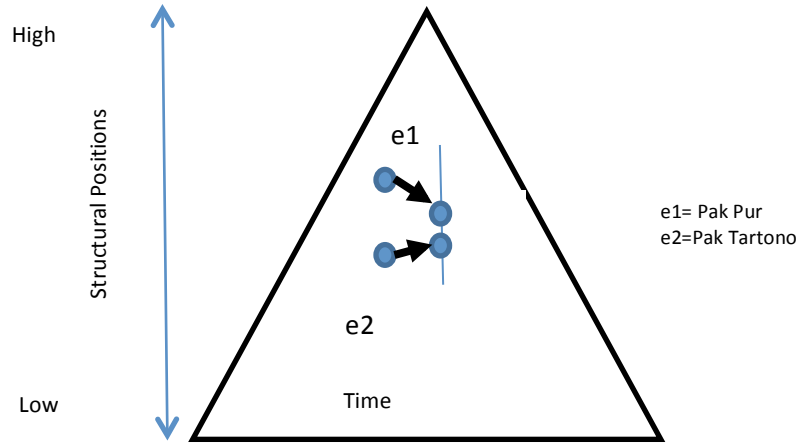

Figure 7.5. The Relative Effect of Social Capital

Source: adapted from Lin, 2004: p. 61

As indicated in the previously, it was shown that there is a relationship between the three levels of HBE, so the structure and relationship shown in figure 7.6, which was also explained in section, show the link between the three levels of HBE.

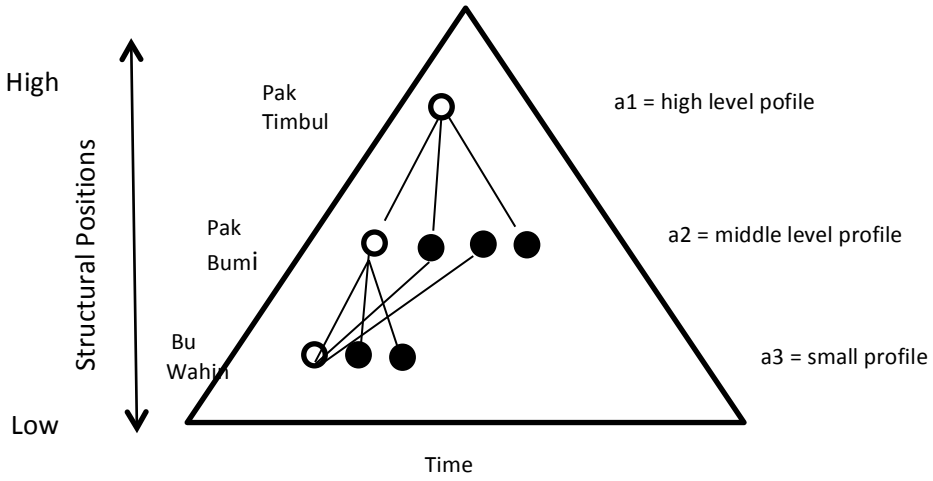

Figure 7.6. Structure of Various HBEs

7.3.3. The Purpose and Result of Social Actions

This section suggested that the actions which could be taken were based on the purpose, but indeed there were some results from networking activities. It is slightly different to Lin's argument that social capital has an intention or purpose from the beginning. According to Lin (2004), the main purpose of social capital is economic and implicitly, capital based on Marxist Theory which aims to gain profit. So unsurprisingly social capital also tends to have an

economic perspective. In doing so, this section explores the purposes and also the results of actions in relation to social capital in both the pre- and post-disaster situations of ceramic home-based enterprises in the Kasongan area. The purposes of actions can be divided into two categories: expressive and instrumental actions. As expressive actions tend to maintain the existing resources, namely in the need for physical and life satisfaction, instrumental actions act to gain new resources, particularly wealth, reputation and power. Lin (2004) argues that the three purposes of social capital, and instrumental actions in particular, are economic, social and political and thus that wealth, reputation and power are the purposes of social actions. The relationship has been adapted from the Weberian perspective, which identified that the three dimensions of "power" distribution in a community consist of *classes*, *status groups*, and *parties*. This subchapter is the exploration of the pre- and post-disaster situation. The social action and relationship in the daily life situation is necessary to explore as it affects and seems to be the basis for social action, relationships, and networking in the post-disaster situation. The cases of social relationships show that many variations in their purposes exist, leading to varying results in the social relationship.

Also, the social capital seems has 3 dimensions of results of actions (Lin, 2004). It consists of economic, political and social dimensions. Some example is explained by the category of survival, reputation, and wealth

7.3.3.1. In The Pre-Disaster Situation: Expressive and Instrumental Actions

In the pre-disaster situation, social capital was established and even started from daily life and simple activity, which involved more than one person and the relationship between people became a capital in gaining purposes (Lin, 2004). According to Lin (2004) the purpose is in a form of expressive in physical and life satisfaction and instrumental actions for wealth, reputation and power. The case of Pak Tartono and Bu Supari shows that the relationship between their formalised and non-formalised social capital had the same economic reasons, namely survival and wealth. In the upper class of the social structure, Pak Timbul seemed to have another purpose in the relationship, since, as Lin suggested, it moved beyond the economic perspective, and became more about social and political reasons.

A. Survival and Wealth

The example of social connection of survival and wealth represented from the connection among different types of HBEs. As it has been explored in section 5.4 about the growth and interconnection between different types of HBEs, it is clear that the motive to connect to gain mutual benefit. The connection among different HBEs also includes the various HBEs between family members or neighbours.

Also, the social connection connected to survival is about the local culture in social gatherings. In daily life, '*gotong royong'* was a part of life, for example Pak Tartono joined the '*ronda*', which is a weekly schedule for the headmen of each household to guard their neighbourhood

area at night. At the same time, by walking to watch with several men on the rotating schedule, via the '*ronda'* Pak Tartono also needed to collect from each household the '*jimpitan'*, a kind a spoon of rice, which is placed in a small container in front of each house. This accumulation of '*jimpitan*' is sold, and the amount of money acquired can finance the needs of the RT. Also, a regular meeting of men or women was part of the social connection between Pak Tartono and his neighbour, in '*arisan bapak-bapak or ibu-ibu', 'pengajian ibu-ibu', 'karang taruna'* (see section 5.3). All of the scheduled or routine social meetings and gatherings on either a weekly or monthly basis strengthened the connections between them. According to Pak Tartono, he found that the social gathering had some advantages in sharing ideas or asking for help.

On the same notion, Bu Supari also felt some advantage in having a close relationship with her neighbours. As the big bench in the 'lincak' was used for daily meetings for conversation, they were able to share view about a topic, ask for help or share information. Also, they helped each other when a neighbour needed a hand to bring raw ceramics from the terrace to the kiln, or to bring firewood to the kiln. In a 2011 interview, they also helped Bu SS when she became the host for the routine '*pengajian*' or prayer gathering to prepare the meals for the visitors.

By having many forms of social gathering, the connection between them was strengthened in how they shared information, as well as media to ask for help and gain social support. The economic response[1] seems the most appropriate when a person has social connections, as Lin (2004) argues, in that economic purposes are the main motivations or drivers. In the case of gaining help from others in ceramic production or in meal preparation, it seems also that there is an economic motive, such as to hire a worker to help in ceramic production. Such wealth becomes the purpose of the social connection as it departs from survival to obtain funds to finance their daily life. However, as it is a mutual benefit relationship, the social dimension is stronger rather the economic dimension: help one another when they need help.

A humanistic response not just an economic one was also part of their response and so the purposes of the social capital were not only to gain economically. It is argued that for some people that a primary motivation to connect with each other was informal bonding both within the family and within the neighbourhood just wanting to be together, having enjoyment which correlates with Lin's description of a social purpose of action.

[1] According to Dean, H. (2010) *Understanding Human Need*. Bristol: The Policy Press.Human needs can be formed in four responses, namely paternalistic, humanistic, economistic and moralistic. Except for an economic motive, another motivation is therefore also a part of the social connections.

B. Reputation and Life Satisfaction

Bu Tumilah seemed to successfully develop her own ceramic home-based enterprise by her good reputation of ceramic maker as it already had a regular buyer, called '*juragan*' or boss, who had a showroom alongside the Kasongan road. With her daughter, she believed made a good product and sometimes her loyal buyer needed to wait to be able to order her ceramic products, as there was a long waiting list. But once Bu Tumilah accepted the order, she provided the order punctually. This was one of her successes, alongside the quality of the product. Her reputation for quality and punctuality meant that her buyer always returned to her HBE, and such a social connection was not only about the economic transaction but also about the social perspective between them, as suggested by Lin (2004), to gain a high level of social acceptance between the buyer and seller, and so the reputation kept the buyer regularly buying her ceramic products.

The same phenomenon was also a part of the sustainability of the ceramic HBE of Pak Bumi. He put punctuality as the first priority, so the buyer always came back to him. Thus it seems that Pak Bumi and Bu Tumilah developed their reputation in producing quality products,

Furthermore, in relation to life satisfaction, Mbak Atun's statement in the opening quotation and paragraph in chapter 1 shows that they were not merely about generating income, but also wanted life satisfaction by looking for an activity that they had a passion for and self-confidence in doing.

C. Instrumental Actions in Reputation, Power and Wealth

Pak Timbul had moved beyond wealth as he was in a stable position and had income as a lecturer in the Art Institute, so economically he was not merely reliant on the ceramic enterprise. However, his entrepreneurship had led to him to have a ceramic home-based enterprise which was growing and had a prominent gallery. As his ceramic business was growing, Pak Timbul also had many positions such as the manager of the KSB, and his reputation to buyers was also well-known as he managed a big company with the help of his wife.

Also, in the political arena, he was a well-known figure in the Kasongan area. Pak Timbul was the manager of the KSB cooperative, and the community forum of KAJIGELEM. His had superseded the previous manager, Pak Subur. Thus, in the political arena, as Lin (2004) notes on the categorization of the purposes of social capital, it seems that Pak Timbul had the power to affect other Kasongan people. The fact is that Pak Timbul had power, and had become a public figure for the Kasongan people, on a wide scale.

In the pre-disaster situation just before the earthquake of 2006, in relation to his ceramic home-based enterprise, Pak Timbul business grew and was in a high reputation, even until nowadays. He had many subcontractors to make unpainted/undecorated ceramics, so with his

ceramic HBEs or workshops, his workers did the decoration or painted all the ceramics, which were usually huge, tall or 'gigantic' forms. Based on the 2011 interview, he mentioned that the mechanism of the subcontractor was a more efficient system for his ceramic HBE, as if he compared this situation with when he had to produce all the ceramic products from start to finish it was more expensive. He also liked to share with others Kasongans, particularly when his ceramic HBE's capacity could not meet the market demand. At this point, wealth is one of the purposes of connection, as is efficiency one of his purposes.

According to Lin (2004), wealth has a strong economic perspective, and in this case this includes aiming to be more efficient. In fact, this efficiency affected the subcontractor: when it gives an advantage to one side, the other side could have disadvantages, such as that the price is at the same level for years. Either the purpose is intentionally or unintentionally done, as one of his subcontractors had a plan to negotiate to revise the contract since the contract was made in 2006, and was still in force in 2011 at the time of the interview. It seems that the efficiency for the other enterprise could mean a reduced profit for the provider, as Bu Bumi complained that the raw material and petrol prices had increased, but the selling product price had remained the same for years. An economic transaction requires negotiation, so it must be approved by both buyer and seller, so when it does not meet the expectations and satisfaction of one side, it could be renegotiated; when it fails, this leads to the cancellation or rejection of the economic transaction. Thus, whether the economic transaction is still working, it is assumed that all have agreed to the price and conditions, even if the profit has decreased, for example. Until the time of writing, all the subcontractors had always met the orders of Pak Timbul.

In the case of Bu Ropiyem, her husband had experienced rejection of his ten gigantic ceramics which were returned to his house as they did not pass the quality control check because they were not thick enough and it was thought that they would easily crack. From that day on, Bu Ropiyem did not receive any more orders from Pak Timbul. However, Bu Ropiyem still had another buyer, particularly from other cities, as she also had a showroom in front of her house. This demonstrates that the good management principles had been applied, in order to have a good quality product, and confirms the application of the reputation principle to the buyer of Pak Timbul. Also, it illustrates wealth, as it is also about the continuation of the ceramic business. Moreover, this case also demonstrates a power principle in application as the subcontracting by Pak Timbul can also be rejected or refused if the ceramic provided by the subcontractor does not meet the expected quality.

7.3.3.2. Post-Disaster Situation: Resilient Home-Based Enterprise

A. Survival and Wealth

Pak Tartono put all his effort into maintaining his membership by attending almost all the events held by the RELIEF programme, which later changed to the KSU cooperative. An

awareness of the benefits of joining the cooperatives was also strengthened by the economic reason behind that, as he felt that it was useful for him, for example he could put his ceramics in the KSU cooperative showroom on the Kasongan main road, and could borrow microcredit to buy some raw materials by having group collateral in the post-disaster context. Bu Supari also felt the benefit of programme as she used social capital in the gotong-royong in relation to having a new house in the post-disaster situation, as stated before

B. Life Satisfaction and Reputation

In the post-disaster situation, Bu Tumilah stopped her ceramic HBE for around one month. However, her contact with her buyers was maintained well, so in the post-earthquake situation, the showroom alongside the Kasongan main road was rebuilt or reconstructed as the regent of 'Bantul' Regency has suggested the '*Bantul Bangkit'* or 'Recover Bantul', so the economic activity in Kasongan was also relatively fast in recovering, and thus the buyers of Bu Tumilah kept orders for her ceramics to sell in their showroom. She maintained her reputation for ceramic products of good quality and punctuality, even though these were made in a house which had not totally recovered, as it had been partly damaged, for example, the roof and also the oven.

C. Instrumental Actions in Wealth, Reputation and Power

Pak Timbul showed a desire to help others, particularly his workers and subcontractors, by distributing funds from his buyer. In their daily life or pre-disaster situation, the purposes of actions, intentionally or unintentionally, were to become wealthy in association with being efficient, and having a good reputation and power. Furthermore, in post-disaster context, the purposes of social capital are formed in the same way but through different actions, based on the event, which are particularly a response to the damage, which was physical, mental and psychological due to the earthquake. As stated before, Pak Timbul called psychologists in consultation session to respond to the stress of his workers. Most importantly, he distributed all the support from his buyer which was given with the intention of helping his workers. His willingness to distribute was, as he mentioned, because this fund was not his, and he told us of his willingness to become a good person. It was perhaps not intentionally done, but he indeed believed that if he used the money incorrectly it would not '*ngrejekeni,*' or give him blessing. Therefore, it is partly a moralistic response, which Dean (2010) categorized as a human need response. The moralistic perspective is a part of reputation, in that, as Lin has categorized, it is one of the purposes of social capital. Furthermore, in part of the post-disaster response, as stated in section , some buyers increased orders in relation to 'helping' Pak Timbul's ceramic HBE, and thus Pak Timbul also distributed the raw ceramics orders to all his subcontractors. This means that wealth was also part of the social capital, particularly in terms of the social action in the post-disaster context, as the orders were also received by his network.

According to Dean (2010), the inherent need of humans can be categorized into four types: utilitarian subject, market actor, psychological being, and species member. However, the most significant factor is psychological from the perspective of inner drive; therefore, Maslow's theory of human need is still relevant nowadays (figure 7.7). In relation to the purposes of action, as Lin (2004) suggested, in addition to Weber who adapted the purposes, Maslow's theory is still relevant and also relates to the purposes. In terms of comparing Maslow's hierarchy (figure 7.7) and the Nan model (Figure 3.6), physiological needs such as physical health and wealth (Nan Lin model) seem to be the basis of human needs and if these needs have already been fulfilled, then they increase to another level, namely power and reputation, which can be the same notion as self-esteem and self-actualization (in the Maslow model). The top of the higher level needs in Maslow's hierarchy also seems to match to the life satisfaction of the Lin categorization, so it is not contradictory but complementary.

<table>
<tr><td rowspan="7">Higher Needs
 
Lower Needs</td><td>Aesthetic Needs</td><td rowspan="2">Added to the hierarchy in 1970</td></tr>
<tr><td>Cognitive Needs</td></tr>
<tr><td>Need for Self Actualisation</td><td rowspan="5">The Classic 1943 Hierarchy</td></tr>
<tr><td>Need for Self-Esteem</td></tr>
<tr><td>Need for love and belonging</td></tr>
<tr><td>Need for safety</td></tr>
<tr><td>Psychological needs</td></tr>
</table>

Figure 7.7 Maslow's Hierarchy of Needs
Source: Dean, 2010:6

In conclusion, social actions can be done with different political, economic or social motivations (Lin, 2004). Although it has no purpose at the beginning, at the end it emerges as a result of these three motivations. The Kasongan case confirms with Lin's argument about result of actions. It results in political dimensions such as the power or reputation of Bu Tumilah and Pak Timbul, economically nuanced as the subcontracting mechanism give mutual benefit among different HBEs. It also has social dimensions through friends and companions, even in the hardship such as Bu Supari. However, it seems that the social s dominantly applied in social action and connections. Social connections seems a way to have enjoyment by being together with other people like Bu Supari and her neighbours, or to share what they have with neighbours, as Pak Timbul case. However, the most important part of social capital is the networking itself, rather than the motivation or results of actions, because with networking in bonding, bridging and linking, Kasongan people can help themselves to recover.

D. Social Capital in Kasongan

Lesson learnt from several places confirm what is happened in Kasongan area in post disaster recovery. A lesson learnt from an acute crisis in the aftermath of a hurricane in south Sweden in January, 2005, demonstrates some similarity with the Kasongan case. According to Johannisson and Olaison (2007), emergency entrepreneurship emerged in this post-disaster situation, in Gudrun Sweden, and they argued that bonding or strong ties were the foundation of the recovery in Gudrun, rather than bridging or weak ties. For them, the case of Gudrun can be differentiated from Grannovetter's 1970s arguments on weak ties in that, 'bridging social capital/ weak ties are seen as the foundation of the way forward and bonding social capital/strong ties as primarily enforcing conservatism and producing stagnation'.

In contrast, in the Gudrun case, 'weak ties are lacking or failing, strong ties in case of emergency grow into genuine strength. That is, it is bonding social capital that immediately can be "put to work" in response to crisis situations that contain both uncertainty and ambiguity. '

However, in another case in 2000, Johannisson and Olaison (2007) argued that, '… bridging and bonding social capital have to combine to create sustainable change. Weak ties produce new potentialities but strong ties are needed to actualize them'.

In this way, both bonding and bridging can work in synergy to form the best type of social capital in response to the post-disaster situation. Furthermore, according to Bhagavatula *et al.* (2010, p. 248), it is important to have the right mixture of strong and weak ties. Also, emergency entrepreneurship in the post-disaster situation in Gudrun facilitated social bricolage as a spontaneous collective action, based on local commitment rather than involving 'outsiders.'[2]

As in Gudrun (Johannisson and Olaison, 2007), the Kasongan case showed both bonding and bridging working synergistically in relation to the fast recovery of the ceramic home-based enterprises in the Kasongan area. The Kasongan case also confirms Grannovetter arguments that weak ties represent bridging such as donor or Italian exporter, is also important to the recovery of HBEs.

7.3.4. The Negative Side of Social Capital

The absence of a cooperative led to a weakened condition for Mbah Temu and Pak Pur. As she was not part of a cooperative, her social and financial capital were low. When she needed funds to recover her HBE after the earthquake and expand, she was only able to access a bank

[2] The emergency entrepreneurship also had other characteristics which are the origin of the initiative rupturing everyday life, the process being immediate interaction, generic coping being local interaction with the situation at hand, and generic sources of social capital being local commitment and swift trust.

loan. When she was unable to pay the loan in the middle of the payment period, the bank finally repossessed the collateral on half of her piece of land to pay all the debt. As a cooperative is more than just social capital, the lack of this capital was significant for Bu Sedep. From a physical capital perspective, her home-based enterprise location was strategic, near the main road, but her tools, in particular the oven and the space she had left were less good; thus, this research judges her physical assets to be at a moderate level.

Both cases experienced significant negative changes to their business. Before the earthquake, they had been successful, even employing 3-15 workers at the peak of their business. At the time of writing, they had become workers in their own HBE, and case A (PP) had even been a worker or labourer for other HBEs. This suggests that these HBEs lacked resilience due to a lack of social capital from the cooperative.

The other negative side of social capital is the alienation of non-'members,' as my field note as follows:

> *….I also met and had an appointment with Pak Warjo, the organizer of UPT Kasongan. Another person that I met told me about the jealousy among the entrepreneurs related to only one person who had resources and a grant and anything else……..The KUB was born as a background to the jealousy too* (Fieldnote,23 June 2011).

In this way, jealousy and feeling alienated was also a part of the dark side of social capital.

Social exclusion is also part of negative side of social capital by labelling, when a member seems cannot follow social norms. As social obligation was part of the purpose of joining the social gatherings and meetings, it also happened that if any person did not come to the social gathering this was *'ora umum,*' or not normal, as all people need each other, and so it was believed that a person had to join the social gathering. It seems that there is an obligation and fear of being called '*ora umum,'* or not normal, and thus becoming alienated, seems to have fulfilled the moralistic response, as if somebody was called '*ora umum'* and did not follow the norms or rules, they were likely to appear strange. The labelling of '*ora umum'* also strengthened the concept that the social connections had a strong economic impact. When a person seemed unwilling to form a connection with others, no such interconnection took place as only one had the initiative to connect by invitation to join the meeting. But when the invited person could not or did not willing go, the connection was interrupted. The economistic response seemed to be reciprocal so that any benefit could be mutually gained.

7.4. Inseparable Capitals in Post-Disaster Recovery: The Importance of Human and Social Capitals

Coleman in 1988-89 elaborated the relationship between social and human capital. He argued that social capital contributes to the development of human capital. According to Field (2008), Coleman saw that human and social capital has an interconnection, and is 'often

complementary' (Coleman, 1994: 304) and has a merit in this collaboration rather than distinguishing between them as competing with each other. Another study in the Netherlands by Boxman, De Graaf, and Flap (1991) also found that those with better education, former occupations, and higher incomes tended to have better social capital (Lin, 2004: 89).

Human capital represents in households and respectively social capital represents in neighbourhood level. The human and social capital is difficult to separate. In the Kasongan case, the environment of the craft village developed centuries ago, and ceramic making has been practised for many generations. Parents asked their children to help them to produce ceramics. The skill of ceramic production is transferable through both family and neighbours, and so human capital in the skill of ceramic production is then developed and affected by social capital, particularly forming a network between family members and neighbours.

7.5. Concluding Remarks

Human and social capital is the most prominent factor in the post-disaster context. Then, human and social capital has become the most prominent and both are interrelated (Coleman, 1988; Field, 2008). From the structural changes analysis, it has been understood that the level of resilience of the ceramic HBEs is depicted by the changes over time. A ceramic HBE household is resilient when this household can adapt to and cope with adversities by generating income effort, including that caused by the earthquake in 2006. This part shows the process of coping with adversity. Furthermore, social capital through their capitalization can form and thus have results in terms of wealth, power and reputation (Lin, 2004), but these should not be understood as the motives or the aims of networking.

This study promotes the importance of the human role in the post-disaster recovery of ceramic HBEs both at the household and neighbourhood levels using SLA as the analytical approach. Moreover, it could be that an external factor such as continuing demand or orders for ceramics became the factor in the recovery of Kasongan's home-based enterprises in the post-disaster recovery context. However, most important is the internal factor. This factor for Kasongan ceramic HBEs is based on the role of people involved in the recovery process being more important in contributing to the resilience of HBEs. The factors of education level and skill as the indicators of human capital have confirmed the theory of the importance of the education level and skill in producing resilient entrepreneurs who can deal with adversity. The factors of networking in bonding, bridging and linking Kasongan ceramic HBEs, both to one another and with non-ceramic HBEs who supported the recovery, have affected ably coping households and the neighbourhood of Kasongan. Both the pre-disaster or daily life responses and the post-earthquake situation in dealing with adversities were assessed in order to understand the base line of responses in the post-disaster situation.

It has been recognized that people are the most significant factor in the response to post-disaster impacts. By recognizing that it is not only skills, education level, and networking that

are important, chapter 8 on human capability is then a supplementary concept to the concept of human capital (Sen, 1997). The extension of human capital in this concept is supplemented by the concept of local character, creativity and thus flexibility, which will be explored and elaborated in the next chapter. These are related to the human character leading to the resilience of HBEs in the post-earthquake situation, which has not been explored by the concepts of human and social capital.

The structure analysis shows there are an increase or decrease condition over time. Households with better social capital will be seen more resilience, when HBEs households with less human and social capital tend to be less resilient.

The next chapter is on human capability, which cannot be separated from the human capital concept, while in turn human capability leads to strengthened social assets in post-disaster recovery.

Chapter 8

Human Capability: Beyond Human Capital

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8.1. Introduction

Livelihood strategies based on socio-capital pertaining to human and social capital as the dominant assets in establishing resilience of HBEs need more explanation regarding the limitations of human capital as a concept. They need more explanation than the concept of human capacity allows. This chapter is intended to expand Chapter 7, particularly in terms of the discussion on human capital, since human capital focuses purely on skill, knowledge and education. What is also needed is an exploration of how other human characters are covered from a social-anthropology and psychology point of view, particularly in terms of the local character and creativity as it contributes to the speedy recovery of HBEs.

The sustainable livelihood approach divides capitals into several parts, and related to this study the resilience of HBEs relies on social and human capital, as explained in chapter 7 that human and social capitals are the main capitals affecting the existence of resilient home-based enterprises. From the social capital in perspective, the importance of networking in recovery of post disaster situation is recognized, whereas from the human capital perspective, we need to note how the Kasongan people as the victims of disaster feel the impact of the post-disaster situation. As the concept of human capital is limited because it only covers the economic perspective, namely the skill and education level, the analysis needs to be expanded.

This chapter consists of several parts. First, it explores the concept of human capability that moves beyond the human capital term (Sen, 1997), and then it focuses on the anthropology of the Javanese people who live in the Kasongan area. Subsequently, the the psychological aspect of the Kasongan people is discussed, particularly the role of creativity in the human aspect of coping with adversity. Thus, a resilient home-based enterprise may exist. Creativity covers both flexibility and adaptation in daily life creativity, and creativity in novelty is represented in art. Therefore, a link with social capital to creativity is examined in the last part of this chapter. However, the most important argument of this chapter is that human capability is more than just human capital.

8.2. Anthropology Perspective: Javanese People

It is recognized that local character contributes to people's response and ability to adapt to hazards and disasters (Oliver-Smith, 1996). A recognition of local culture is important in relation to the authority's response with a post-disaster recovery programme since, as Kulatunga (2010) argues, ignorance of local culture could make the authority or government programme fail. This was seen during the evacuation of a volcano in Yogyakarta, Indonesia, during the eruption of Mount Merapi, when the evacuation failed due to the local

community's preference to hear from the cultural leader rather than the formal leader or authority. This shows that local beliefs and culture strongly affect authorities' efforts in relation to reducing the impact of a disaster (Lavigne *et al.*, 2008; Kulatunga, 2010). Also, as described before in chapter 6, the government also recognized the culture of mutual help, so government organisations' recognition of these forms of co-operatives and cultural characteristics can also be drawn on.

Therefore, it is important to understand the local character of the people, and their beliefs and values in terms of what they perceive to be significant. Therefore, it is important for this research to investigate and reflect on how the Kasongan people coped during and after the earthquake in 2006, in relation to understanding what the Kasongan people think and perceive to be important.

8.2.1.Javanese Characteristics

8.2.1.1. 'Rasa': sense

Based on an anthropological perspective, religion is important in its capacity to serve an individual or group, as a conception of the world, and the relation between them. In relation to their perception of the world, Javanese people are characterized by their strong '*rasa*' or sense. In the context of the spiritualism of Javanese people, Geertz (2000):125 states that '*rasa*' leads Javanese people to give meaning to what occurs in daily life. The meaning of *rasa* is described below:

> *Rasa… a synopsis of cosmic order, a set of religious, beliefs, is also a glossary on the meaning world of social relationships and psychological events…They do not merely interpret social and psychological process in context terms – in which case they would be philosophical, not religious – but they shape them…Rasa, in addition to being a concept of truth, beauty, and goodness, is also a preferred mode of experiencing, a kind of affectless, detachment, a variety of bland aloofness, an unshakable calm. The moods and motivations a religious orientation produces cast of derivative, lunar light over the solid features of a people's secular life. Geertz (2000: 125)*

Rasa is about how Javanese perceive their world, including how they perceive the disaster they experienced. Although it is not in detail, from the interview generally the Kasongan people's views were that they surrender to God. Also, Bu Tumilah and Mbak Atun were religious, despite having been a victim of the earthquake. They felt that they had been unfortunate with the earthquake, and at the beginning they found it hard to accept, but then they surrendered to God (Interview/Bu Tum). An event of life was linked to a philosophical meaning and they could only accept it and believe that God had a purpose.

8.2.1.2. Javanese Emotional Equanimity: Happy or unhappy is the same

One Javanese characteristic is emotional equanimity, such as:

> *The Javanese religion is mystical. God is found by means of spiritual discipline, in the depths of the self as pure rasa. And Javanese ethics and aesthetics are, correspondingly, affect-centred without being hedonistic; emotional equanimity, a certain flatness of affect, a strange inner stillness, is the prized psychological state, the mark of a truly noble character…Happiness and unhappiness are, after all, just the same…The reasonable, prudent, 'wise' man strives not for happiness, but for a tranquil detachment which frees him from his endless oscillation between gratification and frustration* (Geertz, 2000: 136).

Through this characteristic, in facing adversity in life generally the Javanese people seem flat and emotionless, even accepting of their 'bad luck'. In contrast, when they are happy, they also do not show their happiness expressively. By having this character, even when adversity comes, they will not show excessive grief.

8.2.1.3. 'Nrimo': Acceptance

'Nrimo' means horizontal and vertical acceptance in what they get in their life, either good or bad, so it is unconditional. Vertical means that it is related to supernatural power or God, while horizontal acceptance is linked to the relation to other people. According to Anderson (1996), Javanese people are tolerant. Berman (1998) discusses how Javanese people speak through silence and '*nrimo*' behaviour. *Nrimo* is also part of the cosmic of Javanese people (Mulder, 2005). '*Aliran kebatinan'* or a Javanese spiritual sect, also affects Javanese people spiritually. However, even without being *'aliran kebatinan'* followers, the people follow religion:

> *This 'pure' exercise of kebatinan is strongly inward-directed, concentrating attention on elusive inner resources with which it wants to come to grips, training the secretive hidden being (batin) and intuition (rasa) to be attained to the divine inspirations that will function as a guide through life. And so, the kebatinan I came to know drew attention away from the world, finding satisfaction in ……reasoning to explain the functioning of the cosmos, while extolling the virtue and the wisdom of calmly and gratefully accepting (nrima) life as it comes, in the consciousness that it all has a meaning, that the experience of life itself is the fulfilment of some higher will* (Mulder, 2005: 29-30).

This is similar to celestial planetary, called astrology, which is how planets align to people's fate, or how 'it is written in the stars'. '*Nrimo*' also has an astrological spiritual dimension to it which allows people to accept life as it comes, as a given determined by the stars.

Horizontally, acceptance *(Nrimo)* also means the importance of always accepting other's people opinions with respect in order to have harmony. Being respectful to others, particularly to older people, is expressed in the differentiation of language in which *krama inggil* is more polite. This reflects respect for other people and avoids conflict.

In addition, Beatty *et al.* (1999) explain that the religion of Javanese people can be divided into several categories, and human capital is the main determinant of the resilience or recovery of HBE activities in the post-earthquake situation. In doing so, it is not only on the individual level; the bounce back capability depends on human capital at the community level, so it can be called social capital. As such, the main capitals contributing to the resilience of HBEs are

human and social capitals. Acceptance is one of a character which important for people to bounce back from adversities. With this character, people are easily to move on, not stuck in a sadness, but instead they try to find ways to return activities as before. Therefore, the next chapter explores these human and social factors in more depth.

8.2.1.4. 'Rukun': Harmony

According to Irawanto *et al.* (2011), Javanese people have a strong belief that materialistic objects are not important, since they look forward to heaven. '*Surgawi*' (heaven) is more important than '*duniawi*' (world) or materialistic objectives. Life's orientation is focused more on the afterlife, as shown in the classic Javanese quotation, '*urip kuwi mung mampir ngombe'* (life is just to have a short visit and drink). The older generations remind the younger ones that *hidup, mati, rejeki* (life, death and fortune) are predetermined (Prawitasari-Hadiyono *et al.*, 2010). Therefore, Javanese people tend to avoid conflict, and instead they search for '*rukun*' or harmony, and so a great effort is focused on avoiding conflict and on being respectful to other people, regardless of their status, situation or condition (Irawanto *et al.*, 2011).

8.2.1.5. 'Cocok': Perfect Fit

One word, *cocok/tjotjog,* means in its older version 'fit'. '*Cocok*' means how a key fits in a lock, how a pan has a lid, how proper medicine is needed for a disease, and when someone agrees with our opinion that also means *cocok*. *Cocok* means fit as well as harmonious, as stated by Geertz (2000):

> *Tasty food, correct theories, good manners, comfortable surroundings, gratifying outcomes are all cocok. In the broadest and most abstract sense, two items cocok when their coincidence from a coherent pattern which gives to each significance and value it does not in itself have. There is implied here a contrapuntal view of the universe in which that which is important is what natural relationship the separate elements have to one another, how they must be arranged to strike a chord and to avoid a dissonance… (Geertz, 2000: 129-130).*

Bu Tumilah and Mbak Atun are examples of the 'cocok' in terms of ceramic making being preferable for income generation for their family, as they were familiar with it and expert at it. They had a high skill level in making ceramics, which were of high quality, and so buyers always came to buy her raw ceramics and she could never meet the demand. Almost all her buyers visited the ceramic showrooms close to the Kasongan main road. She also recovered fast, even though in the early phase (immediately after the earthquake), she felt desperate and pessimistic. However, due to the demand specifically for her products she was able to recover rapidly, and then she became an optimist, with a growing self confidence in her ability to make ceramics:

> *….if I was given or borrowed 3 million rupiahs to establish 'warung' (a small daily life shop /kiosk/stall), I would reject it, but if it was for using in my ceramic business, I would take it*……(Mbak Atun).

The above condition shows that mbak Atun felt '*cocok*' only with ceramic activity rather than other economic activity, for example to open a small shop in front of her house. It means that she felt that making ceramics was like the lid of pan, and it was very comfortable for her. Even though this may portray the interviewee as being inflexible in only wanting to produce ceramics, on the other hand it shows that she had the self-confidence to continue ceramic production.

In post-disaster situation, the felt perfect fit'cocok' influences to the decision of many HBEs households includes Mbak Atun and Bu Tumilah to restart ceramic production as soon as they can. Combined with other characteristics such as sense, acceptance, harmony, and prefer not in a long sadness, Kasongan people relatively easy to revive to deal with bad condition due to earthquake.

8.2.2.A Study of Coping Strategies during the Economic Crisis

A study of coping strategies by the tourist industries (in a form of HBEs)under economic crisis in Yogyakarta also shows the different types of characteristics evident in two different tourist kampongs (Prabawa, 2010), as shown in her study at Sosrowijayan and Prawirotaman, which are two famous accommodation areas for international tourists in Yogyakarta around ten kilometres north of the Kasongan area. Prabawa argued that even though both areas are occupied by Javanese people, the coping strategies of both areas were different. The Prawirotaman area is occupied by people with a higher social class who are close to the Kasultanan Palace as *abdidalem*. The people in Prawirotaman provide guesthouses for the middle class. The Sosrowijayan kampong is mostly occupied by less wealthy people, providing low budget accommodation, and is also well known as a 'tourist kampong' for backpacker accommodation. An economic crisis led to a decrease in the occupancy level in their rented accommodation home-based enterprises. However, this research shows very different coping strategies in both areas regarding this crisis, which also reflect the very different characteristics of the people of Prawirotaman and Sosrowijayan. These are described as follows:

> *In Prawirotaman, people adhered to a larger extent to what they defined as 'traditional Javanese culture' compared to the inhabitants of Sosrowijayan, even though both areas are located in urban Yogyakarta. The resulting diverging values were reflected in their business practices…..*
>
> *As stated by Koentjaraningrat the Javanese nowadays organize their lives in more rational ways […]but in Prawirotaman, cultural norms prevailed. In hierarchical Javanese society, prestige is important and the Javanese are supposed to act according to their social position. If not, they jeopardize their position and might lose respect. Just as expressed by Selosoemardjan [….]in his explanation of the way the unproductive nobility survived by turning its property into economic assets, he clearly stated that their economic difficulties notwithstanding, the nobility only engaged in 'socially approved' economic activities.*

Although Selosoemardjan referred in his book to the nobles in the 1950s, these norms were still strong among the guesthouse owners in Prawirotaman during the period of my research in 2005.(Prabawa, 2010:301,304).

Furthermore, the differences between Prawirotaman and Sosrowijayan are their coping strategies; Prawirotaman people tend to be 'real Javanese people' (who tend to be less assertive, quiet when they feel uncomfortable, and value prestige highly), while Sosrowijayan people tend to be practical. The owners of the Prawirotaman accommodation typically sold tickets or act as intermediaries for ticket sales for transportation and tours, took part-time jobs as swimming pool contractors, or became intermediaries for property transactions as part of their coping strategies. Meanwhile, Sosrowijayan people tended to dedicate their time to new activities that could benefit them, such as opening small shops or canteens. These two cases show how the different ways of coping with adversity by the Sosrowijayan people were more rational, indicating that they did whatever they could to survive, while the Prawirotaman people tended to be less rational, and instead prioritised pride, as described in the 'real Javanese character'.. This leads to conclusion that person with a more flexible character, he or she become more resilient

This case shows that even though both groups are Javanese people, they are different in several aspects depending on other factors, in this case, the research pays attention to the perception of 'real Javanese people' and more 'rational and practical people'. In other words, different social classes think and perceive things differently, including their decisions, and acts in relation to coping with adversities (as Chapter 6 particularly suggested).

'This case also shows that people's beliefs, values and how these are derived also have an influence in how they perceive misfortune (such as an economic crisis or an earthquake) and the types of strategy they adopt to overcome it. Some resort to 'traditional' ways of coping, while others find more 'practical' and rational ways of recovering. This chapter is interested in how these beliefs and values influence HBE's coping strategies'.(Prabawa, 2010: 301, 304)

In the Kasongan case, it can be stated that almost all of them are Javanese people but that they may have different perceptions and preferences in relation to their choices of coping strategy in the post-earthquake condition. The different 'class' or type of home-based enterprise can be based on their income level and could be one of the different factors determining their coping strategies. Mostly, however, general Javanese characteristics have been identified by anthropologists and researchers. The characteristics of the Kasongan people are broadly described in this subchapter.

8.2.3. A Study of Coping Strategies in the Post-Earthquake Situation

A study by Prawitasari-Hadiyono *et al.* (2010) strengthens the concept of the Javanese capability to cope with adversity, including coping with the 2006 post-earthquake impact in Yogyakarta.

It confirms the concept of *nrimo* as:

> *they perceive the disaster as a reprimand from God. There is hikmah (a blessing in disguise) behind all the miseries. They also see the traumatic experience as their 'takdir' (destiny). No one seems to see the quake as natural phenomenon. The interpretation of the quake is a force to change and return to previous wisdom in facing hard life (p. 15).*

More importantly, the study was conducted in the same regency of Kasongan, Bantul, though the exact place and participants were anonymous. However, as Javanese people, a typical response can be noted from this study:

> *After the disaster, they (the people affected by the earthquake) built a certain inner attitude to cope with it. They began to nrimo (accept), pasrah (retain) and berserah (hold on to God) (Prawitasari-Hadiyono et al., 2010).*

These first two words are related to '*accepting any bad condition'* and the third word is related '*to spiritually having faith in God who will eventually give ways to cope with the misfortune*' (Prawitasari-Hadiyono *et al.*, 2010). The study of Prawitasari-Hadiyono *et al.* (2010) shows that sense (rasa) and acceptance (nrimo), as mentioned above, are part of the Kasongan mentality of coping with the difficulties resulting from the earthquake. Rather than complain, the Kasongan people are able to move on and return to activities as before earthquake. This contributed to the resilience of the ceramic HBE households to return activities as before.

8.2.4. Reflection of the Studies: the Contribution of Local Cultural Character

Human characteristics contributed to the resilience of Kasongan ceramic HBEs, as the Kasongan people were the main actors in the post-disaster recovery. All the characteristics of sense (*rasa*), acceptance (*nrimo*), and emotional equanimity contributed to making the Kasongan people mentally stronger to cope with the post-disaster situation, when harmony leads to their ease in connecting with neighbours or other people, which then builds networking in their social capital. Also, fit (cocok) contributed to the sense of maintaining ceramic HBEs as income generating activities. All this confirms that the Kasongan people felt that they could not do anything except accept the post-disaster impact. However, what is interesting from the various interviews and research by Prawitasari-Hadiyono *et al.* (2010) in the Bantul Regency is that, in the case of the Yogyakarta earthquake of 2006, they actively started to be revived from sadness by 'usaha' (efforts). First, they cleaned up the debris and even restarted their daily chores just a few days after the disaster. They motivated neighbours to clean their surroundings and helped each other with activities. The feeling of solidarity became so strong in the post-earthquake situation that *gotong-royong* became a daily activity, that is cleaning up the remnants of the damaged houses. Indeed, *gotong-royong* is a reflection of *rukun* (harmony) taking place. Also, financial and social support from the family members outside town and other many resources of all the country and international aid strengthened their mental health (Prawitasari-Hadiyono *et al.*, 2010; MacRae and Hodgkin, 2011).

However, it seems that there was in fact a problem which arose when the aid had to be distributed. *Congkrah* (conflict) appeared after the government aid was given to rebuild some houses. According to Prawitasari-Hadiyono *et al.* (2010), in some cases, some people whose homes were not destroyed by the earthquake received aid to build a new house. In contrast, people whose houses were totally damaged received less than those whose house was less damaged. Because of this, some people got angry about the late or lower grant, and this gave rise complaints on this point during the first day of fieldwork. They were suspicious that those who received more aid did so due to their closeness to the authority which had the responsibility to collect data on the aid beneficiaries. In spite of the conflict, Javanese people tended not to resort to confrontation since they have to respect older people even though they may have a disagreement or disappointment. Sometimes people will state the complaint directly to the related person without any physical confrontation or fight. In fact, the people will not send the complaint to the police. Usually, people will complain to others, for example the researcher, who is an outsider, and so they feel that they can talk more freely with outsiders.

This demonstrates that the inner side of the Javanese people tends to have problems balancing harmony (*rukun*) and conflict (*congkrah*). In doing so, it seems that they avoid open conflict, particularly in an open battle or confrontation. Although it is problematic, Javanese people prefer to maintain harmony. It is rare that they will complain openly and then lose friendship. However, in those cases where they received their grants late, for example Bu Suparmi with her cow breeding, they recovered by using their own assets, such as by selling their. Therefore, harmony still exists, but the ability of the Kasongan people to find alternative funding solutions for recovery is part of the creativity of the Kasongan people, and this is covered in the upcoming section.

In conclusion, local characteristics explain why livelihood strategies based on social capital worked in this area, and this adds to the human capital concept by viewing that humans are not only perceived by their education, skill or knowledge, but also other aspects particularly rasa, acceptance, equanimity, perfect fit and harmony. The upcoming section explains the human character from the perspectives of flexibility and creativity, as they lead to the ability to adapt to adversity in the sense that the Kasongan people's ability to solve problems in both the pre- and post-disaster situations.

8.3. Creativity and Flexibility in Adversity

This section shows the importance of creativity to contribute to adaptation, as well as coping, and the flexibility of the ceramic HBE households to face difficulties. It is argued that creativity can be divided into mundane to mature creativity (Cohen and Ambrose, 1999; Cohen, 2011), so this section explores creativity in relation to coping with the post-disaster situation.

8.3.1.Mature Creativity in Art: Creativity in a Ceramic Village

Mature creativity, as Cohen and Ambrose (1999) suggest, involves both the external and internal transformation of an individual, but in this case it is the ceramic HBEs households that we consider:

> *External transformation involves sensitivity to a context as well as awareness of the limitations of a field and the desire to work hard to transform it. … Internal transformation involves sensitivity to one's self and the openness and willingness to modify one's present ways of thinking in order to construct a unique point of view .*

Therefore, mature creativity will transform a field as a representative of a world. More specifically, as stated previously (section 3.5), this type of creativity is related to levels 6 and 7 of Cohen and Ambrose (1999) in which the creator can extend or transform a field, dominantly in science or art; however, this case is related merely to art.

Thus, this section considers creativity in relation to local artists and to a contemporary informal leader in the Kasongan area, who is also the entrepreneur owner of a relatively large ceramic home industry, and an artist.

8.3.1.1. Real Creativity in Kasongan: Creative Design by Local People

Even though the Kasongan area has also been affected by non-local people such as artists or other people who want to develop potteries in Kasongan without moving into the area, several local ceramic artists have designed ceramics based on their own ideas. The Kasongan area has many people who can produce ceramic products which have both functional and artistic value, but the most important real creativity for some of them is that their design is innovative. A person can make an original or genuine design that then becomes a booming success for a certain period of time, as neighbours copy the design to produce and sell the same creation. Many genuine creators of the Kasongan people are able to make a new design in the various forms: roof horn, ashtrays, vases or figurative ceramics (Figure 8.1).

a. Ashtray and flying horse by Narno S, b. Dragon roof top/horn by Sarijo, c. Mustoko/crown of mosque by Sarijo

Figure 8. 1 Novelty Design Ceramics made by Kasongan people
Source: Raharjo (2009)

8.3.1.2. Real Creativity in Kasongan: Creative Figures in Art in the Kasongan Area

Cohen and Ambrose (1999) produce a creativity continuum which differentiates people along a continuum from low to high creativity. A person at the top of this range is described as a creative individual who has imaginative ideas and a level of expertise that takes ten years to master.

This Kasongan artist designs not only ceramics but also genuine art sculptures (Figures 8.2 and 8.3). This conforms to the continuum of creativity of Cohen and Amber at levels 6 and 7, which means real or genuine creativity (section 3.5) depending on the process and product, as he created original art.

Figure 8.2 Art Sculpture and Ceramics made by a Kasongan Artist

a. Mother and children, by Timbul Raharjo Source: fieldwork 2011
b. Flying Horse, by Timbul Raharjo, Source: https://www.facebook.com/#!/timbul.raharjo.92/photos_all
c. Figurine, by Timbul Raharjo, Source: Raharjo (2009): p.262
d. Globe Sculpture in Tanjung Benoa Bali, by Timbul Raharjo Source:https://www.facebook.com/#!/ timbul.raharjo.92 /photos_all
e. A Meeting of Frogs, by Timbul Raharjo, Source: Raharjo (2009): p.261

One characteristic of a creative person lies in their being both a scientist and artist (Feist, 1998), and this is reflected in him, and manifest in his creations. An example of his work is the art creation in Yogyakarta International Airport (Figure 8.3). He also contributes to many art exhibitions on an annual basis and he is the leader of the annual art festival in Kasongan (section B and Figure 8.4). This real or genuine creativity creates an atmosphere of creativity, and also it influences the neighbours to become creative as well. This real or genuine creativity also affects daily life creativity, which is important in being flexible and adaptable to face the difficulties resulting from the earthquake. This is part of the next sections.

8.3.1.3. Real Creativity in Kasongan: Creativity through Art Events and Festivals

A regular art festival has been held in Kasongan for decades. In the beginning, a routine dinner party was held near the Kasongan River to invite particularly international tourists to come and buy ceramic products. This event is routinely organized by Ibu/Ms Suliantoro to promote the Kasongan area as one of the tourist objectives in Yogyakarta, Indonesia (based on the interview and book: Raharjo, 2009). The Kasongan people also built a ceramic museum in the area, but unfortunately it has now gone as there was lack of maintenance funds and the owner of the land asked for its land return. Starting as a non-famous area, Kasongan has become a popular domestic tourist destination in Yogyakarta. From the historical perspective, various artists have developed the area as one of the main ceramic centres in Indonesia.

Figure 8.3 Art Sculpture and Ceramics in Yogyakarta International Airport made by a Kasongan Artist

Nowadays, art festivals are routinely organized, including at the river, usually in November (Figure 5.3). Being organized by a local informal leader, the festival aims to promote Kasongan

as an art and craft village. On the same notion, Metzl (2007) argues that regular art festivals or carnivals depict the creativity of local people and thus develop more adaptive people in the post-disaster situation.

Regular performance in 'ketoprak' or a traditional drama, or another art performance in 'gamelan' or traditional music is part of the Kasongan people's art. These art events and festivals show the high level of creativity of the Kasongan people in owning, managing and organizing such creative events. These events have helped in rebuilding the reputation of the area after the earthquake. By having a good reputation and being a popular place, this helps with the support for emergencies from community groups, such as the provision of tents, food or clothing, which came first to this area, particularly the nearby main road. Also, the art event and festivals seem to be a genuine form creativity which then creates more adaptive and flexible individuals in facing difficulties.

8.3.1.4. Concluding Remarks of Mature Creativity in Kasongan

Mature creativity can be seen in several figures in art who have novel ideas, who have inspired others, including their neighbours, to follow them, and particularly to follow the success of selling the ceramic products. Also, an art event inspired local people to get involved and become more creative. In addition, art events in Kasongan lead to an artistic and creative environment.

The next section focuses on ordinary or mundane creativity.

8.3.2.Ordinary or Mundane Creativity: Adapting To The Market

This part describes how creativity in mundane creativity is that creativity which also takes place in a daily life context, meaning that people need to adapt to daily life problems. In this part, several strategies to deal with daily life problems are discussed, particularly in terms of ceramic production and adapting to market preference, as ceramic HBEs are the main income for households in the case study area. A depiction of several households' means of coping with the post-disaster situation is also given in order to show that such mundane creativity has created a more adaptive people to bring back life as it was before the disaster.

Ordinary or mundane creativity differs from mature creativity, as this creativity is more focussed on dealing with daily life problems, and not on being original or unique. The perspective on mundane or ordinary creativity is that is a means of adapting to the environment, starting from levels 1-5 of the creativity continuum proposed by Cohen and Ambrose (2009) (Section 3.5.5).

8.3.2.1. Copying Traditional Kitchen Utensils from Neighbours or Parents

Copying common or typical designs is also a general strategy for these traditional ceramic producers, and designs have been imitated for decades (figure 8.4). The main function of

traditional ceramics is for cooking, such as traditional stoves or pans, and the design is not important. This practice of imitating and copying is accepted as a common action. The copying process is also a depiction of a way to share ideas, and being imitated is a common practice in the social relationships in this craft village. To share the design idea, and thus the income as well when the design has been copied for free, is also part of the social connection and relationship between them.

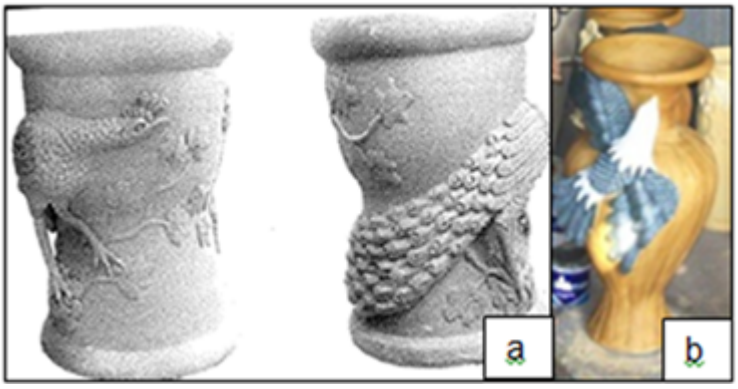
Figure 8.4 Ceramics of Kasongan

This confirms the continuum of creativity proposed by Cohen and Ambrose on levels one to three in mastering a field. The Kasongan people indeed are masters in ceramic making, as the ceramic products have been widely accepted by the market for generations.

Figure 8.5 Functional traditional ceramics that are imitated

8.3.2.2. Modification of a Neighbour's Design

One daily life strategy in ceramic production is the modification of the ceramic products of a well-known producer who is well accepted by the market. Since several non-local people have positively affected the development of Kasongan as a centre of the ceramic industry, Kasongan people were able to create a unique ceramic product, which was later modified by younger generations (Figures 8.6 and 8.7).



a. Table and Chair with Peacock Decoration, by Muchayat, source: Raharjo (2009)
b. Adaptation of Decoration to vase, by Marwan, source: Fieldwork 2011

Figure 8.6 Adaptation of a neighbour's previous design

Nugraha (2009) stated that Kasongan people normally copy or modify high selling designs and are mostly inspired by a neighbour who can successfully sell a certain design of ceramic products. For example, when a horse statue became a success, neighbour also made horse statues with the neck heading to right, while the other neighbours made horse statues with the head bowed or neck heading to the left. This practice has existed in Kasongan for years, and it is acceptable to the Kasongan people.

Figure 8.7 Adaptation of previous design

a.Vase by Punjul in the 1990s was made based on the request of Bu Suliantoro Sulaiman, one of the pioneers of the development of Kasongan as a ceramic centre, source: Raharjo (2009): p.32
b. Adaptation of a vase made by Punjul, by Tumilah, source: Fieldwork 2011

8.3.2.3. Concluding Remarks on Mundane Creativity in Solving Problems

While mature creativity in art has the dimension of novelty or originality, ordinary or mundane creativity in art is copying, which means there is no novelty. Mundane creativity merely has the dimension of solving daily problems, including the difficulty of maintaining ceramic products. In this case, market acceptability is created by following the trend setter, who is the creative one. In reality, this creativity is 'ordinary' and normal from the economic perspective. In addition, 'ordinary' or mundane creativity in copying seems problematic, as it is at risk of copyright violation and seems unethical. Thus, some phenomenon is depicted in terms of the reaction to 'copying' activities as a part of income generation for households. One is about the reaction to avoiding products being copied by others, while the second depiction is about the value of sharing or togetherness being more important than keeping a design to oneself.

The first notion can be called the negative side of copying by hiding a design. Pak Tri hides his ceramic vases at his workshop at the back of his house, and lives together with his father in law. He only shows his vases to prospective buyers or his regular customers, including the researcher, who was able to the details of his ceramic vases which have a different painting pattern and technique. This is not common, since the Kasongan people usually share any designs they have. This phenomenon, then, depicts that 'social' interest may also conflict with 'individual' interest. He did not want to show and share the design to others as it would not give him any benefit, nor would it help his income in selling the ceramic products. Therefore, the perspective of the trade-off between economic and social interest was one of the factors which triggered his decision to hide his design. This action shows that imitation benefits the person who copies, but it also threatens those who own the design.

In contrast, a second reaction to the copyright issue came from one of the creators of designs. In an interview with an artist or creator in Kasongan on the copying of his design by the neighbours, the artist noted that this was accepted by him, since social harmony was a priority for local people. There is an interesting perspective from Pak Timbul Raharjo, a high profile ceramic entrepreneur. Based on the interview in 2011, he sometimes felt that his designs were copied or adapted by other neighbours, and yet he did not think that this was a problem for him at all. Even though he was aware of the value of copyright and regardless of his good education, he also had the perspective that social relationships and capital were more important than owning the copyright. Therefore, it can be seen that from this point of view, social capital was one of the most important values perceived and followed by Kasongan people, as he prioritized maintaining good harmony with other people in Kasongan. Timbul Raharjo was also confident that he could make other new designs when his designs were imitated. It confirms that the characteristics of creative people are more autonomous, introverted, open to new experiences, norm-doubting, self-confident, self-accepting, ambitious, dominant, hostile and impulsive (Feist, 1998:299).

It is problematic that property rights and intellectual property rights are designed to protect an individual or an organisation from having their designs 'copied', because the benefit of its originality or being a sole provider is lost. While the acceptance of the shared ownership of

ideas reflects some other Javanese cultural norms, this could reflect the norms of maintaining harmony, particularly for the person whose designs are being copied.

Interestingly, based on the second interview in mid-2013, Timbul stated that he only allowed his ceramic products to be copied by Kasongan people, where he lives. His creation of arts was not to be copied by others and he also promoted intellectual property rights for artists through seminars. This shows that his place attachment to his neighbourhood area (section 5.4.4) was the main consideration behind allowing the Kasongan people to copy his ceramic designs. Thus, at the same time, he also recognized that the violation of intellectual property rights might reduce his income from his own idea.

8.3.3.Creativity and Flexibility in Dealing With The Post-Disaster Impact

Both mature and mundane creativity can lead to adaptive people in extraordinary situations, namely in the post-disaster situation, by adapting to it so that speedy recovery for the ceramic HBEs could be achieved. One main character of mundane creativity is the ability to solve problems, even in extraordinary situations. In relation to coping with the post-disaster situation, the households of Kasongan needed to recover both their house and their main income generating activities in ceramic production or selling.

The following is a quotation from an interview with a daughter and mother, who worked for a ceramics HBE. When asked about restarting the making of ceramics following the aftermath of the 2006 earthquake, they reported that they restarted their HBE activity even though it was from their emergency shelter, their tent:

> *…at the same time with the efforts to clean up the debris…about 2 weeks after the earthquake, [we] restarted making potteries, am I right mom?... We slept and also made [the potteries] in the tent….although on those days sometimes there were still tremors…but [we] also made potteries during the day...with the hope it can be sold…and that is true, until nowadays all the potteries can be sold out* (Mbak Atun and Bu Tumilah, 2011)

There was a different story from Bu Suparmi. With regard to investment in education, the family had a unique strategy with their choice being to invest by selling the family car in order to rebuild their house after it was damaged by the 2006 earthquake, and to buy a cow. By selling the calf, the cow's breeding activities contributed significantly to financing a better education for their son and daughter to university level, and also for their daughter to pursue vocational education in Yogyakarta city.

This shows that their speedy recovery depended on human views in reacting to the disaster. Such a positive and optimistic view encourages people to 'move on' rather than mourning and doing nothing, perhaps relying on aid or support from aid-givers or the government. Such creativity in choosing adaptation strategies due to the disaster was crucial in the effort to 'adapt and fit the changing environment'.

8.3.4.Creativity and Flexibility Leading in Adaptation and Coping

Human creativity creates a more adaptive person in terms of both mundane creativity and mature creativity. Mundane creativity works as an adaptor and mature creativity as an innovator, and thus they are different types of creativity, as an adaptor is about 'doing things better' and an innovator moves beyond this by 'doing things differently,' and being a genuine or original creator who invents something new for technology and stands out as being significantly different as a piece of art (Michael Kinton in Kirton, 1980; Cohen, 2011). However, both are part of the creativity that contributes to adaptation to adversity, and it is important to understand the connection between them, which is covered in the next part.

It is argued that there is a connection between mundane and mature creativity as creativity generally is also affected by the environment (Sternberg, 2006, p. 88). Mature creativity affects mundane creativity. Mature creativity, which is usually limited to only a few people, affects mundane creativity, which is practised by a wider number of people. Ordinary or mundane creativity is a way to find a solution to everyday life problems and is affected by mature creativity in arts, particularly by creative people who can create a new design to inspire others, including neighbours. The inspiration can directly or indirectly affect the neighbours, directly by making a new creation, so it seems 'real' or mature creativity, or indirectly by 'copying' or adapting an art sculpture or product in order to sell ceramic products. Thus, it can be viewed as 'ordinary' or mundane creativity as although there is no value or novelty in the ceramic design, it can solve the problem of income generation for the household when it is purchased.

As the environment and creativity are important parts of individual creativity, this also confirms the principle that social capital, related to the environment in terminology, affects human capital (Coleman, 1988).

In the case of Kasongan, the atmosphere of an art village or neighbourhood area has created a more creative person. The creative environment in the village which is developed and affected by a small number of 'real' creative people with their ability to affect and change the world, including their own village of Kasongan, has affected other people in the surrounding areas by inspiring them to follow them by trying to make a novelty product or simply to become more creative to solve their daily life problems. The son of Pak Marwan wanted to grow his family ceramic HBE. Inspired by a successful story of a high profile ceramic HBE, he always checked webpages about the trends of ceramic designs worldwide. This shows an example both of how the people surrounding a creative person are inspired to make a genuinely creative design and to become a successful family ceramic HBE by introducing popular ceramics.

The full range of creativities is evident in the case study area, from genuine or 'real' creativity with its uniqueness to ordinary creativity on a daily life basis. All the types contribute to the creativity to adapt to the post-disaster situation. The fact is that the Kasongan people did not merely sit waiting for help from the government or donors and instead utilized their own strategies to cope with the loss of their homes. Mundane creativity was used to solve extraordinary problems to put into action personal coping strategies to respond to the post-

earthquake situation, as discussed previously (in chapter 5 and 6), by restarting their ceramic home industry even though they did this from a tent or by selling their car to enable them to reconstruct their house and/or partly to finance education. This seems to follow the principle of:

> *[…].Creativity and simply thinking in novel ways are facilitated when people are willing to put in up-front time to think in new ways* (Sternberg, 2006: p. 88).

In conclusion, it thus demonstrates what (Metzl, 2007: 129)argues, which is that the adaptation and adjustment level to cope with adversity in the post-disaster situation can be achieved through creativity in flexible thinking in a daily life situation, and also art making in particular.

The adaptation of designs in Kasongan can be seen from a different perspective. In relation to creativity, indeed the copying and imitating is not part of creativity as these activities have no novelty and originality by copying other ceramic production. Presumably, the creativity in ceramic production is only possessed by certain Kasongan people who make the first original design of a ceramic product during a certain period of time. However, they do this in a rotating way, meaning that person A can have a design this year, but next year it may be person B, or person C in the third year, but in a certain year the new design of person A became popular and he or she was the trendsetter. This can happen as they affect each other and depend on the particular current market for ceramics. In China, an oil painting village, copyright dispute is a fact as it practises the copying of paintings by masters (Li *et al.*, 2014). This is also what Kitsch suggests about the repetition and reproduction of a product decreasing artistic value, due to it being more focused on economic value (Calinescu, 1987). However, as Timbul Raharjo in section 5 mentioned, he, as one of the artists in Kasongan, prioritised harmony and social values for people in his neighbourhood area rather than profit and individual value. In this way, real creativity which has an individual value derived from its novelty and uniqueness can contradict other values, such as social values. However, in the case of village industries in Indonesia, this seems not to be the case as social values seem to be more important for local people, which we can call social capital.

8.4. Human Capability Beyond Human Capital

Human capital is about skill, knowledge and education level. In relation to the human response to post-disaster recovery, skill and education level needs to be complemented by human capability. This is about creativity and flexibility and also about the human characteristic to respond to the post-disaster situation.

Firstly, the creativity and flexibility of HBE households contributed significantly to how ceramic HBEs coped with the post-disaster situation. Section 8.3 explains how creativity leads to the creation of a more adaptive and flexible person in a post-disaster situation. This confirms research which found that creativity contributed to a more resilient person in the post-Katrina storm period (Metzl, 2007). The main finding of the research was that creativity is a way of

coping with adversity in terms of the creative thinking shown in New Orleans. While the New Orleans case depicts creativity in art making which facilitated the processing of traumatic events there was a different context in Kasongan. The ceramic making –if it can be called a part of creativity –was supposed to be a way to earn money and give economic benefit, not to have a form of relaxation or leisure. However, creative culture, rituals and festivities facilitated recovery in Kasongan village, as argued by Metzl (2007). There is a creative culture that children experience early in childhood, and the children can see their family tradition in ceramic making. In addition, there is an annual festival in Kasongan, such as the bamboo festival in the river, and therefore this attracts tourist to come to see the festivals. Many other art festivals show that art and creativity are part of the Kasongan people. Also, Metzl (2007) argues that such flexibility is a means of coping with the traumatic post-disaster situation. This phenomenon of creativity has led to a higher adjustment level, but also serves as part the way that Kasongan people responded to the difficulties in the post-earthquake situation. It not only shows that the people in Kasongan are creative in ceramic making, but also reflects their personality as creative people who are capable of coping with adversity.

Secondly, local people's characteristics also contribute to the creation of people who are able to cope with post-disaster. It reflects the contextual factors, particularly the culture and background of the people. Using this study's anthropological and psychological perspectives to reflect on the Kasongan case, the Kasongan people are Javanese and this affects the adjustment level. Specifically, the context of the Kasongan people is seen in Figure 8.8 below.

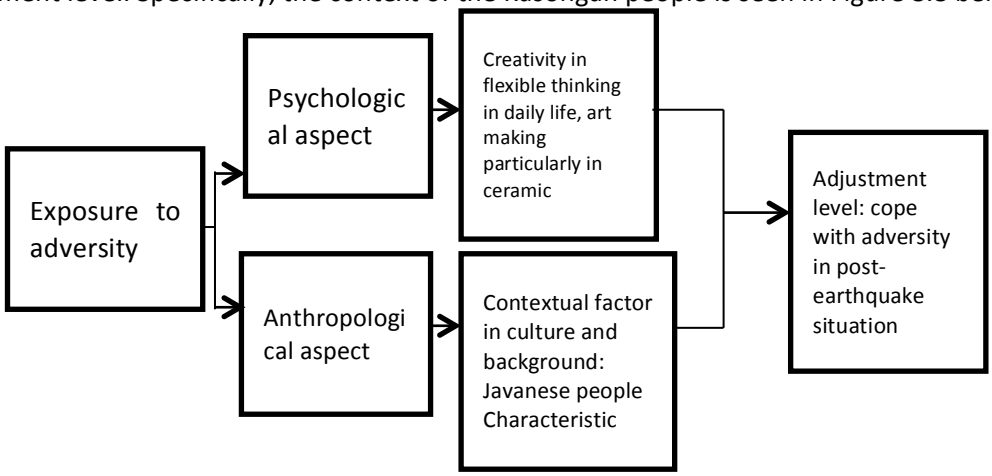


Figure 8.8 Individual level of human capability to cope with the post-earthquake situation
(adapted from Metzl, 2007)

It is the creativity in flexible thinking, originality, and art making that affect the adjustment level to adversity (Metzl, 2007).

In relation to the contextual factor of culture, Metzl (2007) argues that the person's originality in cultural background affect the level of coping with adversities. Based on anthropological aspects, the people in Kasongan have characteristics which contribute to adaptive individuals who can cope with the impact of disaster. The sense, perfect fit, Javanese emotional

equanimity, acceptance and harmony, described in section 8.2, are the cultural factors that lead to ceramic HBE households accepting the disaster and its impacts, including the loss of a family member, viewing that the disaster should not be perceived too emotionally, and accepting the both unfortunate and fortunate events they receive and experience. They were willing to work hard, even after the disaster, as they had found a perfect match of activities to generate income, which kept them in harmony with God and other people. All these cultural beliefs and norms have led to a more adaptive person in dealing with the harsh condition resulting from disaster. These Javanese cultural norms form a Javanese characteristic which has been influential in shaping a resilient person. Alkire , in Smith and Seward (2009), defines capabilities in the following way:

> *Capabilities as defined by Sen are a "person's or group's freedom to promote or achieve valuable functionings" (Alkire in Smith and Seward, 2009, 215)*

Then, functioning is a point that needs to be achieved. In relation to this research, the point is the recovery due to a disaster by coping mechanism. By understanding that the human role is important in the recovery of ceramic HBE households, it has also been understood that the concept of human capital needs to be expanded, by local character. Human capabilities are formed by the concept of local characters (Figure 8.8).

8.5. Social Asset: Inseparable Human Role at the Household and Neighbourhood Levels

Social assets include individuals at the household and neighbourhood levels. Human capital includes skill and education level, and also the human character in being a creative, adaptive and flexible person to cope with adversities, formed by human capability, while social capital is about networking. Human roles in both the household and neighbourhood levels cannot be separated.

The inseparable concept of the human role in both the household and neighbourhood is derived from the link between creativity and the environment. According to Andersson *et al.* (2011), the link between creativity and the environment is described as follows:

> *There are number of indicators that imply that creativity **is not a genetic deviation from the norm but rather a generic human capability.** One indicator is the development of the ability to speak. Even a small child can create completely new sentences in their communication with other children and adults. Sometimes they even seem surprised at their own linguistic and discoveries and inventions. Linguistic creativity seems to develop by **social interaction** throughout a normal human lifespan.*
>
> *The concentration of mathematical, musical and visual creativity in a minority of the population may very well be a consequence of too little daily training during the early childhood years for the bulk of the population. Most creative musicians and other artists have had the benefit of an education in the arts from their earliest years. Surprisingly many artists have grown up in **an environment** that is rich in artistic activities. Simonton (1984) used extensive empirical information to show that early exposure to scientifically*

> *or artistically creative personalities influences the creative capabilities of young people (Andersson et al., 2011: 24).*

The environment in the Kasongan area has naturally led to the production of creative people in producing ceramic products, and to their ability to cope with earthquakes. Thus, environment is not merely a physical setting but is also an artistic climate which is also represented and formed by the people around them. The social interaction and environment in the creative process affects young people when they are growing up, and they become creative as well. Furthermore, a high level of both bonding and bridging in social capital creates a more confident and creative person (Schuller, 2007). Therefore, the creativity of an individual is affected by their environment. Thus, it is called a social asset which consists of human capability and social capital.

8.6. Concluding Remarks

Chapter 8 on human capability focuses more on the human dimension of local characteristics and creativity. Creativity is important in relation to the capability to adapt to adversity or crisis. Flexibility, indeed, affects the human ability to adapt to adversity, including how to respond post-disaster. Combining the local characteristics of acceptance (*nrimo*) and harmony has led to the creation of stronger individuals who face the difficulties caused by the 2006 earthquake. In the sense of novel creativity, despite not all the Kasongan people being capable of being novel in art or ceramic production, this also contributes to the choice of prominent strategies in dealing with the level of survival of their own business. At this point, the decision could affect the people surrounding them depending on the scale of the HBE they have. Individually, however, some households were able to choose significant strategies to deal with the earthquake's impact on them, and consequently they were able to adapt, so they may be called creative persons from this point of view.

Chapter 7 also argued that it is not only human capital that plays a major role, as social capital is also important in relation to the shaping of a resilient person and community in the post-earthquake context. In doing so, both human and social capitals are inseparable capitals since human capability is closely related to social capital. Therefore, it is strongly argued that human and social capitals are interrelated, as creativity is also developed by the environment.

However, a study conducted by Dunham shows a contrary finding about an influential colonial Dutch economist, J.H. Boeke (1953), by discussing the theory of 'dualism' and its equivalent in 'modernization theory'. Dunham framed her study to criticize and counter any theory which 'blames under-development on cultural differences in less-developed countries and recommends their remaking in the image of the industrialized West'. Conversely, Dunham found that low income people, particularly in Gunung Kidul, part of Yogyakarta, Central Java, can 'manage their time and other resources in ways that are not alien to the workings of capitalist markets' and so they did not lack of motivation, but had low access to resources, which hindered their move out of poverty (Dunham in Dove, 2010).In summary, such spirit and

motivation of entrepreneurship, and creativity in terms of their capability to solve their problem of their black smith industry which had existed for millennia, is a typical motivation and spirit of craft villages, particularly in Java, which still exist today. A typical craft industry, as Dunham presented, is also a part of Kasongan ceramic HBE characteristics.

The research of Dunham has strengthened the concept of human capability being more than the concept of human capital, as it needs human creativity, adaptability and flexibility, rather just skill and education. This human capability is important in coping with the post-disaster situation.

Chapter 9

Conclusion: Towards the Resilience of HBEs based on Social Assets in Post- Disaster Recovery

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'This research is about a journey to recognize and understand how people cope with difficulty in their life, and the actions they take to deal with this. It depends on the individual capacity to cope, but everyone also needs others' support. That is the way people become a social creature: they need and help from one another'.

9.1. Introduction: Learning from the Recovery of HBEs

The main research question focused on "How HBE households demonstrate resilience in post disaster recovery situations". This chapter will recap on this research's investigation into the resilience of HBEs when recovering from a disaster, paying particular attention to the social assets at the household and neighbourhood levels. It has focused on the importance of the people themselves and their capacity to recover in post-disaster situations, using Kasongan ceramic HBEs as a case study.

The research process has been iterative (Miles and Huberman, 1994). It identified a greater variety of types of HBE than has usually been understood. Much of the academic literature on HBEs (Kellett, 1995; Tipple et al., 1996; Gough, 2000; Kellett and Tipple, 2000; Gough and Kellett, 2001; Tipple, 2004; Tipple, 2005; Gough, 2010) has focused on the small scale and informal aspect of HBEs; however, this study covers all types or levels of HBE as a result of their growth (Pearson, 2004). Initially the research focused on the capitals of SLA to analyse the HBEs. However, as the importance of "social assets" became evident, it became necessary to enrich the "social asset" element of the SLA framework to include the concept of "human capability" (Sen, 1997; Robeyns, 2005). This is because SLA has focused on the economic aspects of "social assets"rather than non-economic aspects.

The findings of the field work in 2011 found that, firstly, people themselves were important to their own recovery and to the recovery of the wider community. Secondly, on the basis of the main coping strategies adopted by HBEs, human and social capitals of HBEs, rather than other factors (i.e. physical, economic capitals) were more important, and, thirdly, the research also found that social and human capitals could not easily be separated from each other.

The research conclusions are organised around the four research objectives. The first objective was concerned with the importance of the context of resilience in post-disaster responses and, related to this, the importance of HBEs' characteristics; the second part focused on the

dominant capitals or assets used in HBEs' coping strategies to respond to the post-disaster situation. Related to the second objective, the third objective looked in more detail at what factors within the dominant capitals contributed to the faster recovery of HBEs. The last objective focused on the role of human character in HBEs' own capability of dealing with adversity and, in so doing, it extends the concept of human capital.

9.1.1.The importance of Local Context in Post-Disaster Responses

In order to have a better understanding of the dominant factors in the recovery of HBE households in the harsh conditions of a disaster situation, the importance of the characteristics of HBEs, as well as the post-disaster response, need to be recognized and analysed. The first objective was to assess the importance of the context in which resilience takes place, particularly as related to HBEs and post-disaster responses.

In terms of a general context, the historical background of the Kasongan area is that it has a strong tradition and rationale for making ceramics, and this is one reason why ceramic production has been maintained and developed for several centuries by the Kasongan people. Both art and culture events and also ceramic making traditions have turned the area into an art village, which then allowed the government, through policy, to design the area and its wider hinterland as a centre of development for tourists and handicrafts. The strong tradition of ceramic making encouraged Kasongan people to maintain the industry as part of their daily activities and was an important contextual element to Kasongan HBEs' relatively rapid recovery after the earthquake.

Another important contextual element was the recognition by government of the local culture of helping one another, and the government's willingness to allow this to be part of the process of the post-disaster recovery response. The reconstruction process in the Kasongan area was relatively fast and consisted immediately after the earthquake of providing tents, and then shortly after temporary triplex shelters, and finally permanent housing. This provision utilized the 'gotong royong' culture of community, working in small groups of up to ten households using a grant from the government.

This government support facilitated recovery responses from across departments, and also involved multi-stakeholders including international NGOs. That said, although the actors in the post-disaster response were not only from the Kasongan area, the main actors of the reconstruction were the Kasongan people themselves, who worked together to help one another.

Thus, the recognition by the government of the local culture of *'gotong-royong'* or mutual help facilitated the recovery of the housing programme and became one of the significant (contextual) aspects drawing on the community's social assets to help HBE households recover. In so doing, *gotong-royong* was one of the significant coping strategies utilised by the community both individually and as a whole.

9.1.2.The Importance of HBE Characteristics in Post-Disaster Responses

An important question for this research was “What types of HBEs interconnect with each other in a post-disaster situation?”

To answer this, the research recognised multiple types of HBEs which extended and diversified the range of HBEs to include HBEs that had grown from small enterprises to larger ones. This created a typology that included several categories as traditional entrepreneurs, middle level ones, and high level ones. This gives space to Pearsons (2004) idea that HBEs are not only in modes of ‘economic survival’ and ‘economis security’, but that they can also in condition of ‘economic growth’ .

At the higher level, one or two HBEs have become international ceramic enterprises. However they are still maintaining their old house or even reconstructing it, and they are still using it for ceramic production. This commitment to Kasongan is due to these HBEs’ feeling of attachment to the place where they live, which is experienced at both the family and neighbourhood levels. This attachment has partly been strengthened by the heroic history of ceramic making, which has encouraged Kasongan people to believe in the importance of maintaining ceramic making in their homes and villages. Their place attachment at the household and neighbourhood levels confirms the idea of place attachment found embedded in the concept of HBEs (Hidalgo and Ndez, 2001).

These multiple types of HBE then created social networking between them in the case study area. These connections were largely reflected in subcontracting relationships between the various types of HBEs. Most particularly, the higher HBEs used middle level HBEs to source international contracts, i.e. the higher level HBEs gained the international contracts, and then they asked middle level HBEs to produce the unfinished ceramics which were then completed by the higher HBEs ahead of their exportation. Middle HBEs also used traditional HBEs to produce unfired pots, and then fired them, finished them, and sold them on.

Thus, the diversification of types of HBE has also allowed lower level HBEs to participate in international markets. This has therefore become an important social asset of the Kasongan area (see chapter 7).

In relation to the disaster situation, this social asset became one of the HBEs’ and community’s coping strategies because they could restart their enterprises relatively quickly in temporary accommodation, at the bottom, where they only needed quite informal conditions to make pots; at the top, the HBEs with international connections were able to use these personal relationships to rebuild their enterprises, as people in Italy in particular chose to support them financially to help them restart.

9.1.3. Learning from Coping Strategies based on Capitals

The second objective was to examine the coping strategies of HBE households with reference to the dominant capitals of the Sustainable Livelihood Approach and the sub-research questions. These sought to identify:

- the capitals in Kasongan area;
- the adaptation strategies used by HBE households in the post-disaster context; and
- the capitals which contributed most to the resilience of HBEs during the post-disaster reconstruction in the area

From this analysis, the socio-capital or human and social capital of the Kasongan area was found to be the dominant capital, contributing to the resilience of HBEs in the post-earthquake situation. Various strategies were adopted by households to adapt and recover quickly post-earthquake. The strategies drew on the assets they had: physical, natural, human, social, and financial capitals, and even more on the cooperative of which they had become a member (chapter 6).

Various capitals were analysed in relation to their contribution to the resilience of HBEs in the Kasongan area using DfiD's SLA livelihood assets. In relation to Kasongan, an important asset has been Kasongan's geographical location which enables it to take advantage of natural local resources: clay, wood, and water to develop the ceramics business in the first place. Within Kasongan, some HBEs have more or less strategic locations to carry out their business (e.g. a roadside location is a good location for selling ceramics), and as part of the recovery they have been able to re-establish themselves at these locations.

An important aspect of Kasongan's recovery also proved to be the flexibility of the ceramic production process. This allowed people to make pots in difficult conditions, including the temporary tents immediately provided after the disaster, and many people found it therapeutic to return to pot-making almost immediately:

> *We needed to make pots even just a couple of days after the earthquake….Because we needed money, but also there was nothing to do at the tent…so making ceramics helped us not to get bored….(* Interview, Bu Tumila, 13 June 2011 *)*

Financial capital particularly focuses on the access to formal financial institutions such as banks, and in Kasongan access to banking facilities tends not to be a problem, with two or three banks in the village. However, how people manage their money is more problematic; in this research, this has been identified as a failing in the HBE's human capital rather than an issue of financial capital.

In addition, Kasongan has a number of cooperatives which have a financial characteristic. However, this research has recognised these as being both social and financial assets as this financial asset draws on the social capital of the strong linkages that exist among neighbours.

The research found that one cooperative was operating very positively at a social level, and was very helpful in assisting members after the disaster.

However, from the various coping strategies, the dominant or very important capitals of individual HBEs were human and social capitals, and human capital was the significant capital in the emerging resilience of HBEs or their fast recovery post-earthquake (chapter 7). From the social capital perspective, this confirms Aldrich (2012) in that social capital is prominent in building resilience in the post-disaster context. From the human capital perspective, creative adaptation became important in their emerging resilience.

Carney (2001) argues that humans are at the centre of development. It was also seen from the SLA that people and their livelihoods are at the centre of their own recovery. Reflecting on the HBEs' coping strategies, although other capitals also contributed to resilience HBEs, the human responses both at the household and neighbourhood levels for post-disaster recovery were dominant in presenting a fast recovery, demonstrated by the fact that human and social capitals were dominant rather than other capitals.

Therefore, this section shows that social assets in human and social capital are the dominant factors in the coping strategies of HBE households in Kasongan.

9.1.4. Emphasizing the Importance of People's Responses

The third objective of this study was to examine the key factors which emerged in the resilience of HBEs. The research questions focused on how dominant capitals worked in building the resilience of HBEs, considering how the human capital indicators of education level and skilled work affected HBEs' resilience. It also identified the importance of how social capital mechanisms, such as social connectedness, worked in the emerging resilience of HBEs in a post-disaster situation.

As this study focuses on the importance of human dimension of resilienceof HBEs, human and social capitals were identified as the main contributors to the resilience of HBE households, with the key factors being education level, skills, and bonding, bridging and linking (chapter 7). Human capital in education and skill contributed to the faster recovery of ceramic businesses as, by their own hand, they could make ceramics and sell them, only needing clay and not extensive funds. Furthermore, with a higher level of education, entrepreneurs tend to be more flexible towards adversity, including the post-earthquake impacts, and the financial management of enterprises. Social capital was also an important asset in relation to the presence of resilient HBEs in the post-earthquake situation and, as with the social relationship, the Kasongan people could help each other to restart their ceramic HBE activities.

According to Schultz in Lin (2004), education and skill were important assets in determining the capacity of people to improve their life, as confirmed by this research. Human capital in skill and education contributed to resilient HBEs as those entrepreneurs who lacked education and skill tended to be more limited in their ability to maintain their business during adversity,

including in the post-earthquake situation. The education level tended to determine the profile of the ceramic HBE, with the high profile HBEs tending to be owned by someone with a university level education. That said, in some cases education did not significantly contribute to the existence of resilient HBEs, as almost all the ceramic entrepreneurs had a relatively low level of education.

However, the differing skills profile of the HBEs significantly affected their resilience as the characteristics of ceramic making relies greatly on handicraft skills. Therefore, the skill of making handmade ceramics was significantly important in ceramic HBEs, as was their managerial capability. Those cases with fewer skills have been shown to demonstrate less resilience. Consequently, being less skilled became one of the most important factors in the demonstration of less-resilient HBEs in the post-earthquake situation.

As argued by Lin (2004), social capital is important for a better result, and this was confirmed by this research. This research demonstrates that bonding, bridging and linking are the types of social capital which contribute to the resilience of HBEs. From the social capital perspective, networking was one of the HBEs' main coping strategies in recovering after the disaster. The mechanism of bonding relates to the closest relationships between the Kasongan people (family, neighbours, close friends), while bridging involves the participation of both the Kasongan people and other actors through informal organisation arrangements who were concerned with Kasongan in the post-earthquake situation (community groups, private donors). To link to Aldrich (2012), HBEs' ability to socially connect to more formal institutions beyond Kasongan allowed them to gain the support coming from NGOs and government. All these mechanisms significantly contributed to the HBEs' resilience.

In summary, there were several types of informal and formal connecting activities. However, bonding was particularly important as the family relationship is very significant with family relationships occurring on the same plot between family members and across the neighbourhood. These bonding relationships also often linked middle and traditional/small HBEs, and high profile HBEs with middle HBEs. HBEs also benefited from having formal bonding relationships in the cooperative. Those who had a better level of social connection tended to be more resilient, as they demonstrated better coping mechanisms, supported by others (section 7.3.1), to recover in the first instance, and then to help others recover in the second. That said, the distinction between "bonding", "bridging" and perhaps "linking" is blurred, but all are important.

Lin (2004) argues that social capital has a 'purpose of action' as the basic motivation for networking and connectedness. This purpose of action is motivated by political intentions, economic and/or social ones. At the same time these motivations also become affected by the 'result of social capital'. This case study found that a primary motivation for people to connect with each other was informal bonding both within the family and/or within the neighbourhood (section 7.3), which was motivated by people just wanting to be together which correlates with Lin's description of a social purpose of action.

Furthermore, as argued by Lin (2004), changes in the structure of social capital indicate the condition over time of the households. Indeed, this also indicates the level of resilience of households in relation to the level of resilience of HBE households in post-disaster recovery. This confirms that households who have better skills, education level and networking ability, have a better level of resilience (chapter 7).

Finally, while recognizing that skills and education levels, and the variation of social interconnectedness, are important aspects of HBEs coping strategies in post-disaster recovery situations, the research also recognized that another dimension of human capital needs to be comprehended. Therefore, the next section emphasizes the elements of human capital which takes this idea from SLA's narrow economic understanding of human capital into "human capability", and it looks at how this deeper concept is evident in HBE coping strategies.

9.1.5. Reconsidering the "Human Character's" Role in Post-Disaster Recovery

The last objectives of this research are related to the addition of the aspect of human capital capacity to cope with a post-disaster situation. This is related to the human capital indicators of education and skill, which need to be supplemented. The fourth objective was to examine the addition of the human capital concept in human assets based on capabilities. The questions related to this objective were:

- what is the capacity of humans to present the resilience of HBE households in the post-earthquake situation?
- how can human capability, particularly flexibility and creativity, contribute to the resilience of HBEs?

This part extended the human capital concept to include the idea of human capability, which becomes a supplementary element alongside the idea of human capital. The research found that only skill, education and knowledge were related to the economic perspectives concept of human capital. However, the research also found that this could be extended to include the capability to explain how this additional asset also contributed. This sub-section explains how the human characteristic of capability contributed significantly to the emerging resilience of HBEs in Kasongan, particularly in relation to their creativity and local character.

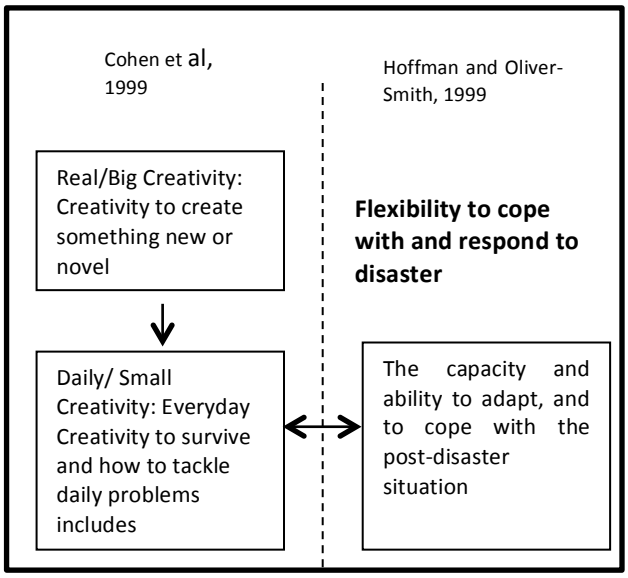

Figure 9.1. Relationship between Creativity and Flexibility to Cope with Disaster

Source: Developed based on Cohen and Ambrose (1999), Hoffman and Oliver-Smith (1999)

From the research, it was evident that creativity took place in daily, small, mundane and ordinary ways as Cohen and Ambrose (1999) suggest, as well as big, mature or real creative ways. Both of these contributed significantly to the creation of more adaptive and flexible individuals, and thus also in relation to the HBEs, as the individuals are the entrepreneurs of the HBEs.

Creativity relates to the capacity and ability to adapt, and can be extended to include individual HBEs and how HBEs as a community cope in the post-disaster recovery situation. According to Cohen and Ambrose (1999), daily or small creativity makes the people who possess it able to survive and provides them with the know how to tackle daily problems. Not only daily problems, but also creativity leads to adaptability and flexibility in coping with extraordinary problems, including working out how to cope with post-disaster impacts. It reflects an ability to think 'outside the box' and to come up with a novel solution to solve these problems differently. A case of a creative strategy is the family in Kasongan who decided to invest in cow breeding in their backyard to replace their family car to create funds to both renovate their damaged house due to the earthquake and to finance their children's schooling. This case shows this daily creativity because it solves both the problems of providing education and of renovating their house when other solutions would not work (Figure 9.1).

If creativity and flexibility help cope with adversity from the psychological aspect, the anthropological aspect focuses on the Javanese cultural characteristics which support the developing of resilience within HBEs. An example of these cultural characteristics is an acceptance of a poor situation (such as an earthquake), and a willingness or ability to revive oneself when in this situation (chapter 8 and Figure 8.9). Furthermore, the next section confirms Sen (1997) argument that human capability is an important addition to the human capital concept.

9.2. Reflection on the Contribution to Knowledge

A framework of this study is shown in Figure 9.2. The resilience of HBEs is about the ability and capacity to adapt and cope in post-earthquake recovery situations. This study focused on people as individuals and as a community and found that the resilience of HBEs is affected by the connectedness of social capital reflected in the literature, and also by the human capital of creativity and flexibility, local cultural characteristics on adaptability and flexibility from the perspective of the individual or human aspect.

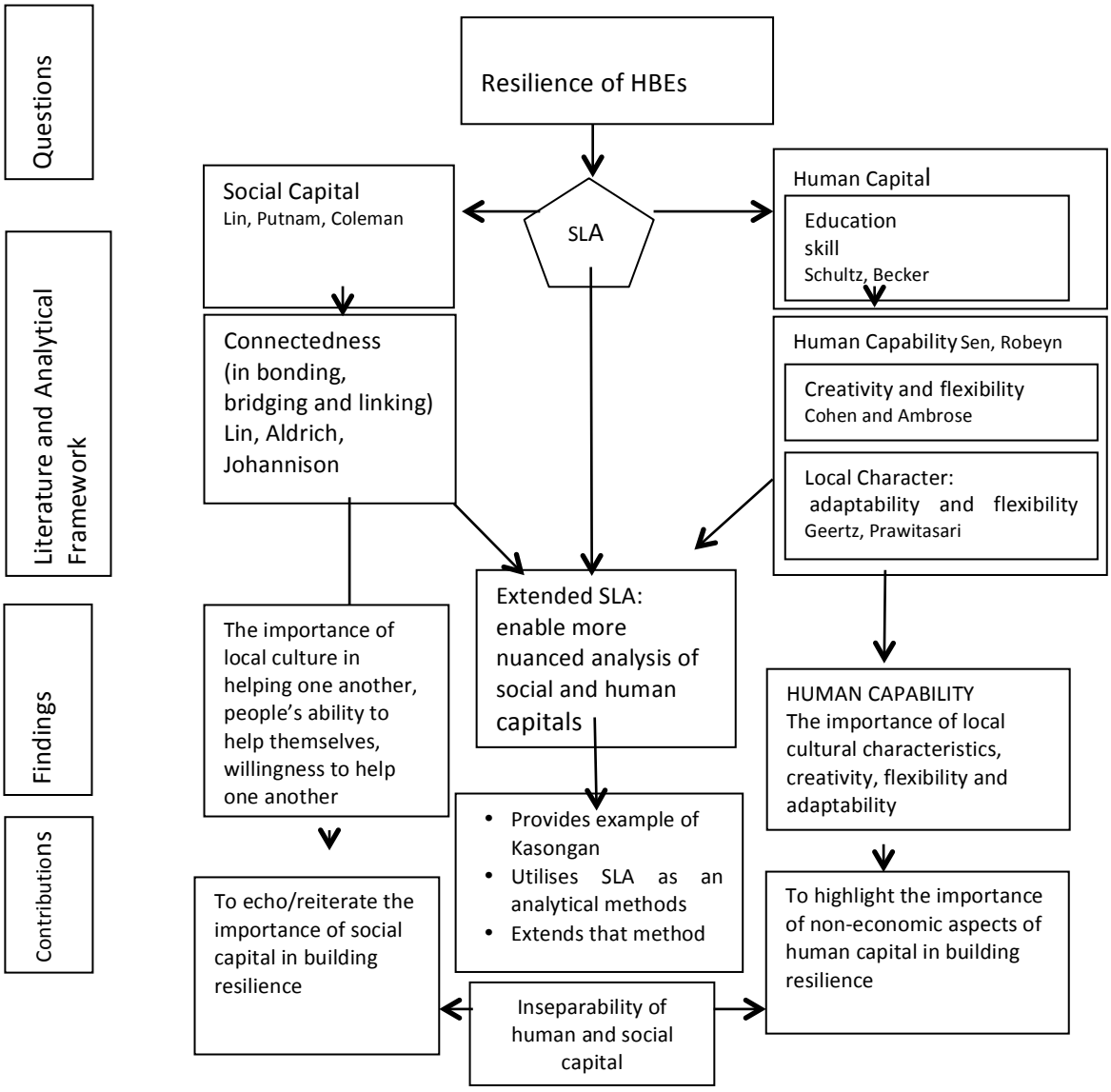

Figure 9.2 Resilience of HBEs based on Social Assets Coping Strategies

Based on SLA as the analytical framework, this study reiterates the importance of social capital in building resilience, as suggested by Lin, Aldrich and Johannison. Furthermore, this study also emphasizes the importance of the non-economic aspects of people that are not usually recognized in the concept of human capital and draws on the key ideas of (Sen, 1997; Robeyns,

2005) to better understand this dimension of the SLA assets. The study also reflects how these capitals demonstrate HBEs resilience in post-disaster recovery situations. Consequently, this study enriches the SLA's ability to analyse an individual and a community's capacity by introducing the indicators of creativity and flexibility and local cultural character to the SLA's 'human assets' (see figure 9.2).

Table 9.1 below identifies the main supporting characteristics based on the SLA's analytical framework needed to build resilient HBEs households.

Table 9.1. The Supporting Characteristics in Developing Resilient HBEs

Capitals/Resources	**Characteristics**
Human Capital	Skills Education
Beyond Human Capital	Creativity and flexibility Local cultural characteristic
Social Capital	Bonding and bridging, linking

Based on the discussion above, a concept of resilience of HBEs can be developed. The concept of resilience of HBEs focused on the coping strategies which are affected by social aspects both at an individual and a neighbourhood level (Figure 9.3).

Based on the household performance of the social aspects of HBE owners' education level, skills and networking, a level of resilience can be indicated. The vertical or Z axis is about the strategies over time to create a level of resilience which consists of immediate responses, coping in the short term and generating adaptation strategies as longer term actions. The X axis represents the social assets at the level of the individual in skill, education, local cultural character, creativity, flexibility and adaptability. The Y axis represents the social assets at the neighbourhood level, particularly in the types of networking (as part of social capital) in bonding, bridging and linking. Consequently, the level of resilience is dependent on the strategies an individual or community adopts which is affected by their human assets at the individual level, notably in: skill, education, local cultural characteristics, creativity, flexibility and adaptability. It is also affected by the social asset at the neighbourhood level, reflecting the individual's or community's ability to tap into these assets through bonding, bridging and linking.

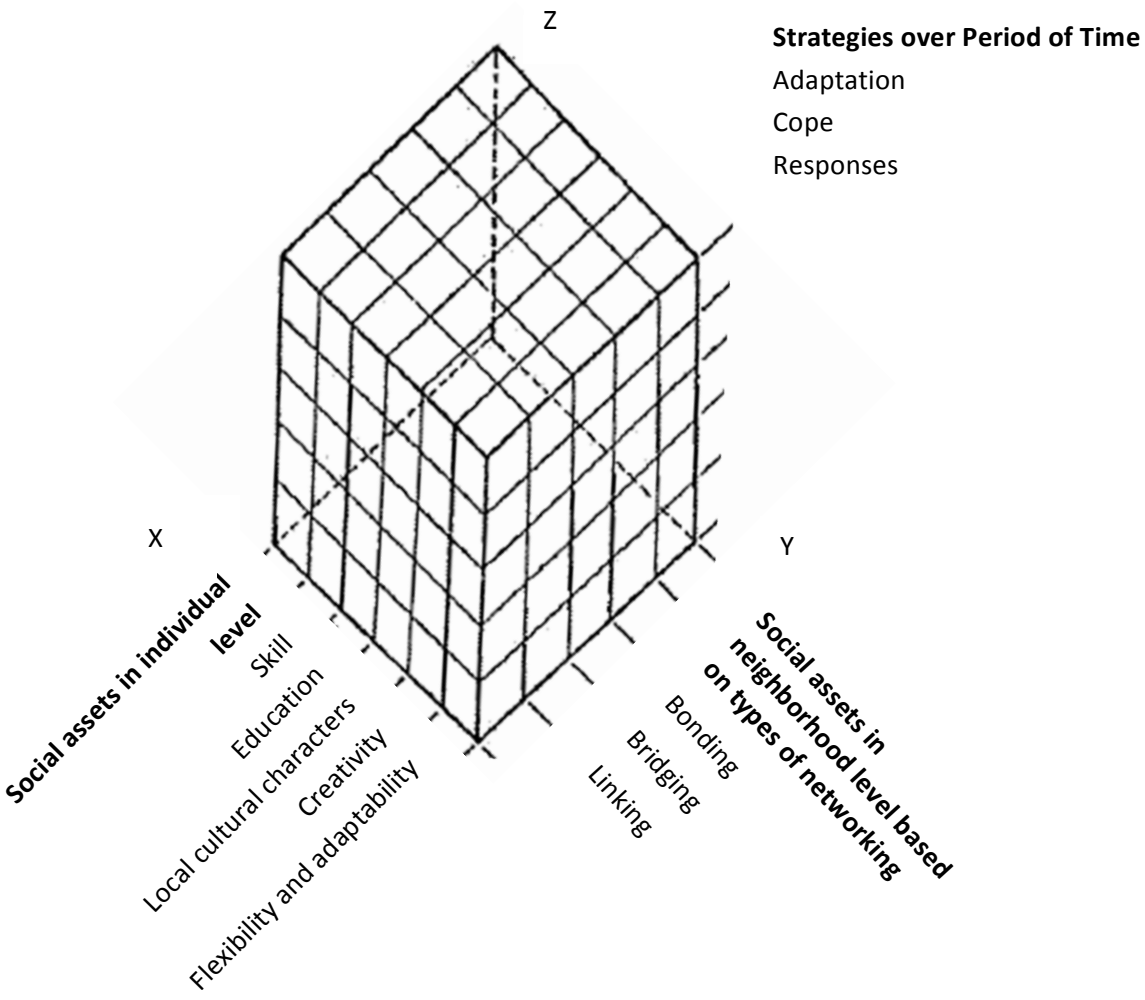

Figure 9.3. A Concept of Resilience of HBE Households Over Time based on Social Assets

For example, an HBE household with a higher level of education and creativity, as well as a higher level of bonding and bridging, will tend to have more resilience than a household which has a lower level of these. Also, the resilience of HBEs can be developed or reduced based on their accumulated actions over time, which is then represented in the 'response', 'coping' and 'adaptation' strategies they adopt either immediately, or in the short or longer term. Some of these will help and some of will hinder.

9.2.1. Enrichment of the Human Aspect through the Human Capability Concept

This section will explain in more detail on the contribution this study has made. It is divided into three parts which focus on how this research has enriched the human aspect of SLA, the

inseparability of the human and social capital concepts, and the case study as a prominent research method.

This research has recognized that the human response both at the household and neighbourhood levels is the main factor contributing to success in the coping strategies adopted by HBEs in the post-disaster recovery situation. This factor also needed to be enriched to extend the rather narrow economic focus of human capital to include other aspects of humanness.

The human capital concept focuses on the human ability in relation to the level of education, skills and knowledge as capitals. Human capital is defined by the OECD as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (Keeley, 2007, p. 29). This has been confirmed, as chapter 7 demonstrated, that all indicators, education levels and skills, in particular, affected the resilience of HBE households as they tried to recover in the post-disaster situation.

Thus, in relation to the SLA, human capital is one of the resources used in HBE strategies to cope with and adapt to changes. However, the difference between human capital and human capability, according to Sen (1997), is as follows:

> *'The former concentrates on the agency of human beings –through skill and knowledge as well as effort –in* ***augmenting production possibilities.*** *The latter focuses on* ***the ability of human beings to lead lives they have reason to value*** *and* ***to enhance the substantive choices they have****. The two perspectives cannot but be related since both are concerned with the role of human beings, and in particular with the actual abilities that they achieve and acquire' (Sen, 1997: 1959).*

Therefore, humanness should be viewed as more than just the economic aspects of education and skill, which are usually used when researching human capital, and human capability offers an extension to this narrower interpretation.

9.2.2. Inseparability of Human and Social Capitals: To Become Social Assets

Coleman (1988) argues that social capital contributes to the creation of human capital. This has been confirmed in the Kasongan case, as the creative environment enabled the formation of creative people in terms of adaptable and flexible people in dealing with daily life problems (see chapter 8, and figure 9.1). This environment of ordinary or mundane creativity influenced the Kasongan people in becoming more adaptive.

To strengthen the concept of the inseparability of human and social capital, as Lin (2004) and Coleman (1988) suggested, the case of Kasongan shows that creativity, as Cohen suggested, is affected by the environment. The Kasongan case shows that creativity is spread in a creative environment, so the distribution and spread of creativity and flexibility was facilitated through

the development of social capital in networking between Kasongan people. The spread of the skills in ceramic making was done by family members or neighbours (chapters 7 and 8). Such creativity had developed over a long time period, in a village which had a long history of creative arts, and it was spread to form creative individuals both in ceramic making and also in facing adversities. At the same time, a particularly creative Kasongan individual also influenced other people, becoming an inspiration for neighbours, as they wanted to follow his success.

As social assets concern individuals at the household and neighbourhood levels, human and social capital are difficult to separate, as one affects the other.

This research found it very difficult to separate human and social capital as it found they were interwoven. To tease out the threads for individual analysis detracted from understanding them in relation to each other and reduced them to components parts when they needed to be understood as a working unit. A helpful analogy might be the inseparability of individual woollen threads woven together as a rug. To separate the rug into its individual threads may help in understanding its constituent parts but it detracts from seeing the rug as a whole, and understanding it as a rug.

9.2.3.Case Study and Qualitative Research as Method

A case study as a research method, combined with qualitative research, was the most appropriate tool for this type of study. Due to the capability to explore deeply in a heuristic approach, this method is able to provide theory building (chapter 4) when there are repetitious cases of many studies. Thus, the findings of this study are a start in reflecting upon the concept of how HBEs face adversity, particularly in post-disaster situations, and in so doing demonstrate differing levels of resilience within Kasongan.

Flyvberg (2006) argues that knowledge not only comes from a generalization, but also from in depth enquiry through the case study. Thus, the case of Kasongan provides information into households in the area who experienced and responded to different coping strategies in relation to the earthquake and the post-earthquake situation, offering insight in relation to the post-disaster recovery stategies at the household and neighbourhood levels.

This research highlighted the need for a multidisciplinary case study to understand the phenomenon of the resilience of HBEs in post-disaster contexts. The discipline of anthropology provided ways of understanding human behaviour not available through SLA. The anthropology discipline allowed this research to consider HBEs not only in terms of their adaptation to the human environment at an economic level (evident in SLAs human capital), but also focused on the humanness of the human response to the post-disaster situation reflected in this research's 'human capability' (Hoffman and Oliver-Smith, 1999). Anthropology also allowed this research to consider local cultural characteristics, such as 'acceptance', which have contributed to creating an individual who can accept disaster with its impacts and then look for the way to cope with these rather than protesting and doing nothing (chapter 8). The psychology discipline provided this research with insight into the idea of creativity which

proved to be important in HBE's ability to adapt in the post-disaster situation. By recognising various disciplines which are also related to this study, multidisciplinary perspectives have been accommodated through the case study as a research method, in order to answer the research questions, particularly in response to how socio-capitals contribute to the speedy recovery of HBEs.

9.2.4.Implications for Further Research

This research has focused on the individual characteristics of HBEs in Kasongan as they recovered from a disaster. It showed the importance of the individual and the individual's ability to determine their future in relation to the community. It would be useful if this work could be attached to more institutional work, reflecting an NGO's response to disaster to help inform thinking on how people employ capabilities and coping strategies to create successful outcomes.

The research also extended the SLA to consider social and human assets in detail, paying more attention to anthropology or psychological dimensions. There is potential to develop these dimensions in future research.

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Appendices

Appendix A: Questionnaires and Interview Questions

Kuesioner untuk HBE yang masih bertahan*(Questionnaires for HBEs households)*

Kuesioner ini adalah bagian dari penelitian tentang Usaha berbasis Rumah di Kasongan, Yogyakarta-Indonesia, terkait dengan kemampuannya untuk tetap dapat bertahan dalam menghadapi perubahan, khususnya bencana gempa bumi 2006.

Questionnaire for HBEs Households

This questionnaires is part of a study of Home based Enterprises about the resilience to face with adversities, 2006 earthquake in particular.

Berikan jawaban/tanda silang (x) pada jawaban yang paling tepat atau mohon diisi titik-titik yang kosong.

Choose one of the best answer or filling the empty spaces.

Nama :.....
name
Alamat: Dusun...../RT.....
Address: Sub-village……/RT……..
Usia :.....
Ages:

No	*Nama name*	*Keterkaitan dengan KK The relation of the head of Household*	*Umur Age*	*Pekerjaan occupation*	*Tkt pendidikan Education Level*

1. Apakah Anda sendiri dahulu yang memulai usaha gerabah di rumah Anda?
    a. Ya, sejak tahun.....
    b. Tidak, warisan orang tua sejak tahun .....
    c. Lainnya, mohon disebutkan .....

1. Did you start the ceramic enterprises by your self?
    a. Yes, since the year of ….
    b. No, inheritance from parents since the year of ….
    c. The other answer…….

Usaha berbasis Rumah/Home Industry/Home based Enterprises

2. Usaha gerabah Kasongan:
    a. Sebagai satu-satunya pemasukan rumah tangga
    b. Sebagai sumber utama pemasukan rumah tangga
    c. Sebagai tambahan pemasukan rumah tangga

Home based Enterprises

2.Ceramic HBEs in Kasongan:
    a. Is solely income resources for household
    b. As a main income for household
    c. As a complementary income for household

3. Usaha gerabah Kasongan dalam rumah Anda meliputi:
    a. Produksi gerabah
    b. Penjualan gerabah
    c. Produksi gerabah dan Penjualan gerabah
    d. Lainnya, mohon disebutkan.....

3.Your ceramic HBEs includes:
    a. Ceramic production
    b. Ceramic selling/sale
    c. Ceramic production and selling
    d. The others please states…….

4. Jumlah tenaga kerja dalam Usaha Gerabah Kasongan dalam rumah Anda:
    a. Tanpa anggota keluarga, ...orang

b. Sebagian anggota keluarga....orang, dan bukan anggota keluarga .....orang
c. Semua anggota keluarga....orang

4.The number of workers of your HBEs:

a. Without any family's member,….people
b. family member….people, and non-family member…people
c. All are family member….people

5. Pemasaran produk gerabah Anda meliputi:
   a. Pasar Tradisional
   b. Pasar Turis Lokal dan kota-kota di Indonesia
   c. Pasar internasional/ekspor
   d. Pasar campuran, mohon disebutkan.....

5.The market of your ceramic HBEs includes:

a. Traditional market
b. Local tourists and other cities of Indonesia
c. International market/exported
d. Mixture Market, please explain…..

6. Cara pemasaran:
   a. Diantar ke warung-warung atau pasar-pasar sendiri dengan sepeda/sepeda motor*
   b. Punya showroom sendiri
   c. Berdasar pesanan langsung dari pemesan atau pesanan dari Usaha gerabah Kasongan yang lain dengan diambil sendiri oleh pemesan/diantar ke pemesan*
   d. Lainnya, mohon disebutkan.....

6. The sale/marketing:

a. Send to small shops/warung or traditional market with bicycle or motorcycle
b. Through own showroom
c. Based on the order coming
d. The other, explain….

7. Apakah Anda mempunyai tungku pembakar/kiln sendiri:
   a. Tidak, menggunakan tungku pembakar/kiln milik.....
   b. Ya,berkapasitas .....metres cubic menggunakan energi.....

7.Do you have own kiln:

a. No, use kiln of …..
b. Yes, with a capacity of……. Metres cubic with

Sumberdaya Alam
Bahan baku

8. Bahan baku Lempung yang Anda gunakan berasal dari:
   a. Kasongan
   b. Godean
   c. Daerah lain, mohon disebutkan.....

Natural Resources
Raw Materials

8.Clay is coming from:

a. Kasongan area
b. Godean area
c. Other Areas, explain…..

Sumber daya Fisik
Infrastruktur

9. Apakah Anda menemui kesulitan ketika truk akan mengangkut bahan baku atau akan memasarkan produk gerabah Anda ke daerah lain?
   a. Tidak
   b. Ya, karena.....

Physical Resources
Infrastructure:

9.Do you find any difficulties when the truck transports raw material or sales the ceramic to other areas?

a. No
b. Yes, because of….

10. Adakah masalah dengan listrik di rumah Anda?
    a. Ya, sering mati... dengan frekuensi.....
    b. Tidak

`

10.Is there any problem with electricity at your HBE?

a. *Yes, often with a frequency of ….per year*
b. *No*

11. Pasokan air untuk usaha Anda dari PAM/Air sumur/.....* tidak pernah mengalami masalah/mengalami* karena.....

11.The water for the HBEs is from water company/private well/…….never has a problem/has problems because of…….

Modal Sosial

12. Pernahkan Anda menerima bantuan dari Usaha Gerabah yang lain di Kasongan?
    a. Tidak, silakan ke no 14
    b. Ya, silakan ke no 13

Social Resources

12.Have you ever received help from other ceramic HBEs in Kasongan?

a. *No, go to no 14.*
b. *Yes, go to no 13*

13. Bentuk bantuan atau dukungan dari usaha gerabah Kasongan yang lain adalah:
    a. Menerima limpahan pesanan Usaha Gerabah yang lain.
    b. Kerjasama pengadaan bahan baku
    c. Kerjasama pemasaran
    d. Lainnya, mohon disebutkan.....

13.Help or support from other ceramic HBEs in Kasongan in:

a. *Get the surplus of orders of other ceramic HBEs.*
b. *A joint raw material's provision*
c. *A joint marketing/sales*
d. *Others, explain…..*

14. Apakah Anda bergabung dengan kelompok pengrajin di Kasongan dalam bentuk:
    a. Koperasi, mohon disebutkan .....
    b. Paguyuban, mohon disebutkan.....
    c. Kelompok yang lain, mohon disebutkan.....

14.Do you become a member of ceramic maker group in Kasongan:

a. *Cooperatives, explain…..*
b. *CBOs, explain…..*
c. *Other group,……*

15. Peran kelompok pengrajin tersebut adalah:
    a. Bantuan pemasaran.....
    b. Bantuan pinjaman dana.....
    c. Bantuan peralatan.....
    d. Bantuan keahlian.....
    e. Lainnya, mohon sebutkan.....

15.The role of ceramic makers group are the support of:

a. *Marketing…..*
b. *Loan….*
c. *Equipment….*
d. *Skills and consultation…*
e. *Other, explain….*

Sumberdaya Keuangan:

16. Apakah Anda melakukan peminjaman untuk melakukan usaha Anda?
    a. Tidak pernah
    b. Ya,dengan Bank.....
    c. Ya, dengan Koperasi.....
    d. Ya, pinjaman dari saudara/ teman
    e. Ya, dengan sumber lainnya yaitu.....

Financial Resources:

16.Have you applied for a loan to support you ceramic HBEs?

a. *Never*
b. *Yes, with bank….*
c. *Yes with cooperative…..*
d. *Yes, from relative/friend*
e. *Yes, from other resources…..*

Gempa Bumi 2006

17. Sebelum gempa, rumah Anda memiliki .....kamar, dan setelah gempa.....kamar

Earthquake 2006

17.Before the earthquake, the rooms you had…., and after the earthquake…….rooms

18. Sebelum gempa Anda memiliki ruang usaha di luar kapling yang Anda tempati sekarang, Ya/tidak* berupa....., dan setelah gempa Anda memiliki ruang usaha di luar kapling yang Anda tempati sekarang, Ya/tidak* berupa.....

*18.Before the earthquake, you did/didn't * have more land where you occupied for your HBEs in ……m2., and after the earthquake you did/didn't have more land in……..m2*

19. Sesaat sebelum gempa, usaha gerabah Anda dibandingkan dengan kondisi sekarang:
    a. Kondisi sebelum gempa sama daripada kondisi sekarang
    b. Kondisi sebelum gempa lebih baik daripada kondisi sekarang
    c. Kondisi sebelum gempa lebih buruk daripada kondisi sekarang

Alasan.....
.....

19.To compare the condition of your ceramic HBEs condition just before the earthquake with the current condition was:
    a. The pre disaster condition was the same with the current condition
    b. The pre disaster condition was better rather than current condition
    c. The pre disaster condition was worse rather than current condition

Reasons……
…….

20. Ketika gempa bumi 2006 melanda, apakah Anda menghentikan usaha gerabah Anda?
    a. Tidak
    b. Ya, perlu ..... bulan kemudian untuk memulai kembali usaha gerabah

20.When the earthquake 2006 hit, did you stop the ceramic enterprises?
    a. No
    b. Yes, need …months to restart the HBEs

21. Sesaat setelah gempa, apakah anda sempat berganti mata pencaharian, bukan sebagai pengrajin, sebelum kembali menjadi pengrajin kembali?
    a. Tidak
    b. Ya,
       menjadi.....selama.....bulan

21.Immediately after the 2006 earthquake, did you ever changed the occupation, not as ceramic producer, and then returned as ceramic maker again later?
    a. No
    b. Yes, become…..for….months

22. Sesaat setelah gempa bumi 2006, bagaimana kondisi rumah Anda?
    a. Tidak rusak sama sekali, dan tidak mempengaruhi usaha gerabah (mohon ke no 25)
    b. Kerusakan kecil/minor,mohon disebutkan.....n amun tidak mempengaruhi usaha gerabah (mohon ke no 23)
    c. Kerusakan kecil/minor,mohon disebutkan..... mempengaruhi usaha gerabah (mohon kemudian ke no 23)
    d. Kerusakan parah/Major,mohon disebutkan..... (mohon kemudian ke no 23)

22.Just immediate after the 2006 earthquake, how about your house condition?
    a. Not damaged at all, did not affect to the ceramic HBEs(go to no. 25)
    b. Minor damage, explain…….but not disturb ceramic HBEs (go to no. 23)
    c. Minor damage, explain……. disturb ceramic HBEs (go to no. 23)
    d. Mayor damage, explain……. (go to no. 23)

23. Akibat dari gempa bumi 2006, tahapan rekonstruksi rumah Anda adalah:
    a. Bangunan/Tenda darurat/Emergency, bangunan sementara/temporary dan rumah permanen
    b. Bangunan sementara/Temporary dan rumah permanen

`

c. Rumah Permanen

23.Due to the 2006 earthquake, the stage of reconstruction of your house:

a. Tent/emergency shelter, temporary building and permanent building
b. Temporary building and permanent building
c. Permanent building

24. Apakah Anda menerima bantuan dari pihak lain untuk memperbaiki rumah?
    a. Tidak, mohon ke no 26
    b. Ya, mohon ke no 25

24.Had you ever received help from other to reconstruct your house

a. No, go to no. 26
b. Yes, go to no 25

25. Anda menerima bantuan:
    a. Bangunan/tenda darurat dari.....dalam bentuk.....
    b. Bangunan sementara/temporary dari.....dalam bentuk .....
    c. Bangunan/rumah permanen dari.....dalam bentuk.....

25.Did you receive support:

a. Emergency shelter from…… in the form of……
b. Non-permanent building……. In the form of……..
c. Permanent building…… in the form of……

26. Apakah Anda menerima bantuan untuk memulai kembali usaha gerabah Anda pasca gempa?
    a. Tidak, mohon ke no 28
    b. Ya, mohon ke no 27

26.Did you receive support to restarted the ceramic HBEs in post-earthquake situation?

a. No, go to no 28
b. Yes, go to no 27

27. Dalam bentuk apakah bantuan yang Anda terima untuk memulai kembali usaha gerabah?
    a. Dana hibah, mohon disebutkan jumlahnya.....
    b. Peralatan, mohon disebutkan.....
    c. Pelatihan, mohon disebutkan.....dari..... .....
    d. Pesanan barang (order) atau limpahan pesanan, mohon disebutkan .....dari.....
    e. Lainnya, mohon disebutkan..... ...

27.What were the support to restarted the ceramic HBEs activities?

a. Grant, in amount of……
b. Equipment, explain……
c. Training,……from….
d. Order coming……from
e. Other support, explain……

28. Apakah motivasi Anda untuk memulai usaha gerabah Anda lagi pasca-gempa?
    a. Karena usaha gerabah sebagai sumber mata pencaharian/pendapatan keluarga
    b. Untuk mempertahankan warisan(budaya)
    c. Alasan lain, mohon disebutkan.....

28.What was your motivation to restarted the ceramic HBEs in post-earthquake situation?

a. Because the ceramic HBEs is the main income generation for my family.
b. To maintain cultural or parent heritage
c. Another reasons, explain….

29. Apakah strategi Anda dalam merekonstruksi dan memulai kembali usaha gerabah Anda?
    a. Mendapatkan pinjaman, dari.....
    b. Memulai usaha gerabah secepat mungkin tanpa dana pinjaman
    c. Mengontak buyer/pemesan/pelanggan tetap
    d. Lainnya, mohon disebutkan.....

29.What were your strategies to reconstruct and restated your ceramic HBEs?

a. Get a loan from…..
b. Restarted as fast as possible without a loan.
c. Contacted the regular buyers
d. Others, please explain…..

30. Apakah strategi Anda untuk mempertahankan usaha gerabah Anda sampai hari ini?
    a. Berusaha mendapatkan pinjaman baru untuk meningkatkan usaha.
    b. Mempertahankan kualitas produk
    c. Meningkatkan strategi dan inovasi pemasaran, misalnya membuat website profil usaha, facebook atau jasa penggunaan internet yang lain
    d. Lainnya, mohon disebutkan.....

30.What were your strategies to maintain your ceramic HBEs?

a. Get a loan to increase my ceramic HBEs
b. Maintain the product quality
c. Increase the strategies and making innovation, i.e. make business profile in webpages, facebook o other internet webpages
d. Others, please explain…..

31. Pendapatan dari usaha gerabah Kasongan anda per bulan berkisar:
    a. Di bawah UMR(< Rp 750.000)
    b. Sampai dengan dua kali UMR (Rp 750.000-Rp 1.500.000)
    c. Dua sampai empat kali UMR(Rp 1.500.000-Rp 3.000.000)
    d. Lebih dari empat kali dari UMR(>Rp.3.000.0000)

31.The income from Kasongan ceramic HBEs per month approximately is:

a. Below regional minimum wages(< Rp 750.000)
b. Up to twice of regional minimum wages(Rp 750.000-Rp 1.500.000)
c. Twice to up to regional minimum wages(Rp 1.500.000-Rp 3.000.000)
d. More than four times of regional minimum wages(>Rp.3.000.0000)

32. Pengeluaran bulanan rumah tangga (uang belanja, uang sekolah, dana transportasi, biaya kesehatan, tagihan listrik, dan sebagainya) adalah sebesar :
    a. Di bawah 1 juta rupiah
    b. Antara 1 juta sampai 1,5 juta rupiah
    c. Antara 1,5 juta rupiah sampai 3 juta rupiah
    d. Lebih dari 3 juta rupiah

32.The household expenditure (daily cost, tuition fees, transport cost, health cost, electricity bills) in amount of :

a. Below 1 million rupiahs
b. 1 -1,5 million rupiahs
c. 1,5 -3 million rupiahs
d. More than 3 million rupiahs

33. OBSERVASI: Penggunaan ruang rumah untuk keperluan rumah tangga dan usaha gerabah:
    a. Luas bangunan rumah sebesar .....meter persegi
    b. Luas ruang untuk usaha gerabah adalah .....meter persegi
    c. Penggunaan ruang luar untuk usaha gerabah adalah .....meter persegi dari .....meter persegi dari total luas

33.Observation: the space used for both domestic and enterprises activities:

a. The space used for domestic activities…….meter squares
b. The space used for enterprises activities…….meter squares
c. The plot needed for ceramic HBEs…..meters square from …….meters square of the total land needed

34. OBSERVASI: Lebar jalan terdekat menuju ke rumah adalah:
    a. 1-3 meter
    b. 3-6 meter
    c. Lebih dari 6 meter

34.Observation: the width of road/alleyway goes to house:

`

a. *1-3 meters*
b. *3-6 meters*
c. *More than 6 meters*

Plot/denah rumah dan home based enterprises: *The figure of house and HBEs:*

3.10.2. In Depth Interview (for Resilient HBEs)

sumberdaya manusia
Apakah Anda merasa bahwa membuat usaha sendiri dan mandiri adalah penting? Alasan Anda memulai usaha ini?
Apakah ada motif lain untuk tetap mempertahankan usaha gerabah di rumah Anda?
Adakah usaha meningkatkan ketrampilan?
Apakah Anda merasa ketrampilan Anda sebagai pengrajin yang membuat Anda bertahan dengan usaha gerabah Anda?

Human Resources
Do you think that having HBEs and become independent is important? What were your reasons for starting your own business?
What are your reasons to maintain your HBEs?
Is there any efforts to increase your related skills to ceramic HBEs?
Do you think that your related skill of ceramic making contributes to maintain to your ceramic HBEs?

Sumberdaya sosial
Apakah ada sumberdaya sosial yang terlibat dalam mempertahankan usaha gerabah Anda sampai saat ini? Adakah dukungan dari paguyuban, RT/RW atau koperasi?
Apakah sumber utama pendanaan usaha gerabah Anda pasca gempa? Apakah dari koperasi, paguyuban, LSM, Lembaga donor internsional atau pemerintah?
Apakah bahan baku yang menurut Anda tersedia dengan mudah dan murah sehingga memudahkan Anda untuk mempertahankan usaha gerabah Anda pasca gempa?

Social Resources
Is that any social resources to contribute to continuation of ceramic HBEs? Any support of CBOs, RT/RW or cooperatives?
Were there any funding sources in post-earthquake? Is there any support of cooperatives, CBOs, NGOs, or INGOs or government in post-earthquake situation?
Was there any raw material which is accessible and affordable so it make you easier to maintain our ceramic Bes in post-earthquake situation.

Sumberdaya fisik
Apakah kondisi jalan di Kasongan sangat mendukung transportasi dalam usaha gerabah Anda? Adakah hambatan utama dalam prasarana(air/listrik)
Physical Resources
Does the road condition support the transportation of your ceramic HBEs? Is there any constrain in infrastructure (water/electricity).

USAHA
Suppliers/pemasok
Siapa saja supplier dan dalam bentuk apa
Mengapa memilih supplier tertentu,dan bukan yang lain?
Adakah masalah dengan supplier?
HBEs
Suppliers
Who are the supplier and what type of supplier of them?
What the reason for choosing your current supplier?
Is there any problems dealing with your suppliers?

Customer/pelanggan/pembeli
Mengapa pembeli datang ke usaha Anda, bukan yang lain/tetangga?
Cara untuk memperoleh pembeli baru
Adakah masalah dengan pembeli
Buyers/Customers
Why the buyers chose to buy your ceramics, not your neighbours's ceramics?
What is your strategy to find new customers/buyers?
Is there any problems dealing with buyers?

Strategi bertahan
Apakah strategi Anda untuk membangkitkan kembali usaha Gerabah Anda pasca- gempa 2006? (baik dalam bentuk rekonstruksi rumah dan membangkitkan kembali aktivitas usaha gerabah)

`

Apakah Anda menemui hambatan dalam mempertahankan usaha gerabah Anda?
Strategies to maintain the HBEs
What were your strategies to restart your ceramic HBEs in 2006 post-earthquake situation? (both house reconstruction and restarted the ceramic enterprises).
Did you find difficulties related to how to maintain your ceramic HBEs?

Menurut Anda dari berbagai aspek (manusia, sosial, alam, pendanaan, dan fisik), yang manakah yang paling penting dalam mempertahankan usaha gerabah, meski diterpa berbagai hambatan(gempa,dll)? Adakah faktor yang lain yang mendukung bertahannya usaha gerabah?
Which ones do you think that from many aspects(human, social, natural, financial and physical)is the most important in maintaining ceramic HBEs, although it is any adversities(earthquake, etc)? Is there any other factor which support to the continuation of ceramic HBEs?

3.10.3. Semi-structured Interview to government officials

Bagaimana gambaran tingkat pengangguran di wilayah Kasongan dan sekitarnya?

Apakah masyarakat Kasongan dan sekitarnya termasuk kreatif dibandingkan dengan masyarakat daerah lain?

Bagaimana bentuk ketrampilan masyarakat Kasongan, termasuk motif dan budaya/kebiasaan masyarakat Kasongan?

Apakah bentuk dukungan pemerintah atau lembaga yang lain dalam mempertahankan keberadaan usaha gerabah Kasongan?Bagaimana proses dan mekanisme dukungan tersebut? (formal dan informal)

Apakah faktor yang paling penting dalam mengembalikan aktifitas usaha gerabah Kasongan pasca gempa? Proses dan mekanisme apa yang menurut Anda terjadi sehingga pengembalian usaha gerabah Kasongan dapa terjadi secara relatif cepat?

How about the unemployment level in Kasongan areas?

Do you think that Kasongan people are more creative rather than other people?

What is the skill of Kasongan people, what is habit or cultural characters of Kasongan people?

What is the support of government and another insitutions in maintaining the exsitece of ceramic HBES? How about the process and mechanism of the suppot?(formal and informal)

What is the most important factor to restart ceramic HBEs faster? What is the process and mechanism which contributes to restarted ceramic HBEs?

3.10.4. Semi-structured Interview to experts

Apakah jenis-jenis usaha rumahan gerabah Kasongan?

Bagaimana bentuk ketrampilan masyarakat Kasongan, termasuk motif dan budaya/kebiasaan masyarakat Kasongan?

Apakah bentuk dukungan pemerintah atau lembaga yang lain dalam mempertahankan keberadaan usaha gerabah Kasongan?Bagaimana proses dan mekanisme dukungan tersebut? (formal dan informal)

Apakah faktor yang paling penting dalam mengembalikan aktifitas usaha gerabah Kasongan pasca gempa? Proses dan mekanisme apa yang menurut Anda terjadi sehingga pengembalian usaha gerabah Kasongan dapa terjadi secara relatif cepat?

What is the type so f ceramic HBEs in Kasongan?

What is the skill of Kasongan people, what is habit or cultural characters of Kasongan people?

What is the support of government and another insitutions in maintaining the exsitece of ceramic HBES? How about the process and mechanism of the suppot?(formal and informal)

What is the most important factor to restart ceramic HBEs faster? What is the process and mechanism which contributes to restarted ceramic HBEs?

3.10.5. Semi-structured Interview to CBOs(cooperatives and Community group), NGOs

Apakah bentuk dukungan lembaga anda untuk mempertahankan dan mengembalikan usaha gerabh Kasongan pasca-gampa 2006?

Apakah bentuk dukungan pemerintah atau lembaga yang lain dalam mempertahankan keberadaan usaha gerabah Kasongan?Bagaimana proses dan mekanisme dukungan tersebut? (formal dan informal)

Apakah faktor yang paling penting dalam mengembalikan aktifitas usaha gerabah Kasongan pasca gempa? Proses dan mekanisme apa yang menurut Anda terjadi sehingga pengembalian usaha gerabah Kasongan dapa terjadi secara relatif cepat?

What was the support of your institution people in maintaining the existence and restarted the ceramic HBES in post-earthquake situation?

What was the support of government and another institution in maintaining the existence of ceramic HBES? How about the process and mechanism of the support? (Formal and informal)

What was the most important factor to restart ceramic HBEs faster? What is the process and mechanism which contributes to restarted ceramic HBEs?

Data/dokumen yang dibutuhkan (Pemerintah): *(Lists of Secondary Data Needed from Government)*

Gambaran tingkat pengangguran, tingkat kriminalitas, dan jumlah wirausaha di Kab. Bantul terutama di kawasan Kasongan.

Rekonstruksi pasca gempa 2006, terutama di Kasongan termasuk foto sebelum dan setelah gempa.

Data terbaru tentang usaha di Kasongan

The data relates to unemployment level, crimes level, and the number of ceramic entrepreneurs in Bantul Regency, and Kasongan area in particular.

Reconstruction of 2006 post-earthquake 2006, includes in Kasongan area, if possible to find the photo before and after earthquake.

The latest data of ceramic HBEs in Kasongan

Appendix B: The Sample od Field Notes

Sunday, 26 June 2011

……

At Saturday afternoon, in around one and a half an hour, I had an initial interview with an informant, particularly from a side of previous researcher. His name is Hari Susanta Nugraha, a lecturer of Business Administration in my Uni, graduated from University of Indonesia with his dissertation is Ceramic Industry in Kasongan Area. His focuses his dissertation in the genuity of local product which has international market. He has argued that information is important to learning process from evolution of traditional to exported product and internationalization. While his focus is in industry and network which contribute to sustainability of the exported industry and its backup industries, my focus is on the sustainability of home based enterprises, ranging traditional indutry, middle-backup industries of exported indutries and exported industries which originally made from home based enterprises. According to Nugraha(interview 2011) exported and its backup industries is around 15 %, while around the rest in 85 % are traditional industry, and can be stated that all are home based enterprises. This traditional industry, according to Nugraha(2011), are sells their product itself by his bicycle to distribute their traditional products to local markets every morning. This type is lack of information and skills(in comparation with the middle type industry, who can fullfill the demand of exported industry who deliver a subcontract to the middle industry to produce products as buyer demand specification).

According to Nugraha(2011), regarding the type, the adaptation and coping strategies toward post earthquake of various type of industry is different. An exported industries has a certain market/ frequent or seasonal buyers which support the recovery process. They keep the order or support by give all payment at the beginning. In doing so, the exported industries motivate its supported(middle) industries to give subcontract/ orders otherwise if their supported industries were not able to accept, the leader of exported industries will transfer the order to other middle / supported industries. And for traditional industries, regarding post-disaster context, the adaptation and coping strategies for the operator were the change of jobs, to be a farmer, join to informal sector such as parking person in cities, fisherman.

In Sunday,26 June 2011, while I have got to go to wedding party of neighbour, I met with one of the resource person, an expert of rural livelihood strategies toward crisis, with a name of Prof Dr Rijanta in the party. This is the first time I met with him, as before I contact him only by facebook. Through this initial meeting, hopefully I can meet with him in the future, and I then ask to get the handpohone number.

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1 Juli 2011, Friday

About the reconstruction and recovery program in Bantul Regency, the kepala bagian sarana prasarana Bapeda Bantul, Arie N, ST,Msi. He explains the recovery on post disaster era, and he said on the coordination function of government which can works successfully due to the local culture was also support in recovery, particularly ‘gotong royong’ and ‘sambatan’, which the head of household works in small groups (10-15 head of household) rotarily works together to build their house, one by one. The criterion for priority is for the elderly people and if any member of family got an ill will be prioritized rather than the other family to have a new house to build. He makes a analogy of driver and vehicle,

government as a driver, and community as a vehicle: both are needed each other. If one absent there is no movement of vehicle.

One question I have asked regarded Building Permit, due to he mentioned that government also facilitate and socialize the strong building structure which is needed in disaster prone area. In addition, he also mentioned such as Building Permit can be released whether the strong structure has been fulfiled, such as in foundation, colum/strong frame, and 'kuda-kuda', a strong frame of roof construction in triangle form.

I asked about did IMB also considerate the house as an economic activity? Is it means that an economic activity are approved to occupied in the house? Pak Arie said that such a relative small industry are acceptable as it is needed to generate income for household. So it means that Government accept and approve the home industry, and regulate the building standard for the safety purposes and preparedness towards earthquake in such disaster prone areas. The implementation of the Building permit are guided by facilitators in Housing Recovery Project to practice a safe and strong building. As a limited budget, the fund in Rp 15 million are prioritized for the strong frame, and the other materials such as bricks, roofs and unstructured materials are recycling the building materials which are left from earthquake.

He mentioned that bagian sapras focuss on building reconstruction and public infrastructure recovery, such as health centre, schools, markets(as the dominant is farmer).

He also suggested me to ask bagian perekonomian, as Kasongan also has a grant(?) related to livelihood, not only house reconstruction, but also in empowerment program.

Then I went to dinas tenaga kerja dan transmigrasi, I met with ibu kasubbag bina program, Ibu Dra Irna Iriyanti, MS, stated that data from her agency is different with Statistic Data Bureau(BPS). The different the baseline for unemployment rate is 35 hours/week is not working/unemployment and for BPS not working is for a people who are not working at least 1 hour per day. The other different is the source of data, for BPS the accurate and detailed data is based on Census in every 10 years and SUPPAS in the middle, but for yearly data basis used sample. On the other hand, data from Disnakertrans used yearly data from Kelurahan dan Kecamatan. Bappeda and other SKPD usually used data from Disnakertrans in policy making purposes. I also prefer data from Disnakertrans, due to it seems more reliable and collect data from the smallest government unit, not a sample. In doing so, I obtain the employement rate from Disnakertrans from 2005, 2006 and 2011. 2005 to show just before the earthquake, 2006 to show the condition after earthquake and 2010 to show the recent condition. I just found from the provincial data, the condition 2005-2006 is not far from the point of view the level of unemployement rate for Kelurahan Bangunjiwo, but the unemployement rate in 2010 is increased sharply. I curious that which part of Bangunjiwo has significantly decrease in unemployement rate...Is it because Kasongan area has deprived significantly? or other areas? Or from the change of statistic baseline(any addition of ½ pengangguran category in 2010, but not for 2005 and 2006).

She also mentioned a a point of Kasongan areas which are well-known, well developed and as a icon for Kabupaten Bantul. In doing so, Kasongan is not part of Disnakertrans areas, but it as domain for Disperindagkop, due to the SME's development in Kasongan areas. So, she suggested me, to ask disperindag in relation to explore program has been implemented or planned for the area.

When I went to kantor kelurahan, it was closed, so I went to households. The first visit is mbak Surit, with baby and toddler. She open 'warung' in her mother showroom with her sister and her mother side in the same showroom, and also the middle sister.As the pillars

in the terrace of her house mother can divided the terrace into three parts, the showroom looks divided into three parts of showroom: mbak Surit, the middle sister and the mother. Previously she lived with her mother with her family(husband and 3 childrens), but nowadays she lived at her husband house. The husband works as worker in other home based enterprises. Her father works as peternak, cows 'nggadhuh sapi' it means he grow the other person's cows and his wages are the baby cow from the cow. Her mother previously produce ceramic, but then as the buyer (still family)is never pay the ceramic that has been taken from her(700 hundred rupiahs twice=1.4 million rupiahs), her mother reluctance to produce the ceramic anymore,as she has no capital anymore. Nowadays, the mother is only sell the other ceramic or 'mburuhke' it means that she buy 'mentahan' the uncooked clay, and she will oven it in her 'tobong' in other places. Nearby the bu Mul(mother of mbak Surit) is the biggest sister house, who also sell the ceramic in front of her house. At the back of house the sister also grow chicken, nearby the cow's 'kandang'nest??.

The second person is pak Ribut, an old man which traditionally with his wife produce a big kuali, for aluminium cooked before it is formed in other form. The kuali is only one use, so the demand is always come. In front of his house, there is a showroom for his son production in finishing ceramics. The showroom looks new and elegants. When I stop in his house, I saw a pickup colt stop and supply 'abangan' ceramic, which means it has been oven, but it is unfinishing. Then at the workshop at the back, the son and other family member(6 people) decorate and a painting (or give glue, sand in many colours, give motive in selotipe, or rattans the guci(1 meter, 80 or 60 cms). Each weeks they can send 100 pieces to Kalimantan or other buyer. The complain is the damage/broken ceramic when it is reached Destination. But, it is significantly increases after the earthquake. Pak Ribut has own production, looks for national buyer adn his sons has another ceramic productions.

The son, contact with his clients with handphone, by communicating and send the picture through handphone.

Day 10 7 July 2011

I went to UPT Kasongan, I saw a bus from Manjung, Magetan regency,East Java, 6 hours by bus to come to Kasongan, Bantul Regency, Yogyakarta Province. 12 pengrajin, mostly woman, come to visit study to Kasongan. Previously, they have ben trained by instructure from UPT Kasongan who come to Manjung for 3 days training and workshop, and the last day, the trainee then come to visit study to Kasongan. I also met and have an appointment to Pak Warjo, the organizer of UPT Kasongan. Another person, that I met is Pak Haryono, as a Kepala Seksi Produksi dan Pengembangan Industri. Previously he was a kepala seksi in Koperasi, and he knows about the role of cooperatives in Kasongan. Koperasi Setyo Bawono, Koperasi Usaha Bersama and Senin Kliwonan. He told about the jealousy amongs the entrepeneur related to only one person become a resources and got grant and anything else. But, as a Javanese people it is not expresively would be sound, but it can be written by the change of attitudes/sikap. The KUB was born has a background of the jealousy too.

Then I went to Pak Triyanto'house. He produces all by himself, shape, fired, finishing and markets all his ceramic. He also has a showroom, but not all the design is shown in his showroom, as he worried about the copy of his latest design in his guci in gradation of dot pattern and flower in motive. Eventhough he mentioned about the copy and plagiarism is usual behaviour/attitudes among the ceramic entrepeneur, he seems ha a stratey to maintain his business. He also has several workers from neighbourhood areas. He

mentioned about the cooperatives and bank is very helpful to maintain his business. For example to buy raw materials, he can borrow from bank in 'sebrakan' to get cash money instantly. He will repay all at 3-4 months, but form cooperatives has another benefit, ast he interest rate is relatively low, and can be repaid montly in 2 years, for example when we borrow 5 miilion rupiahs, it shoud be repaid 6 miilions rupiahs in 2 years.

I interview the next interviewee as I interested to see many small 'kendhil/pengaron" like a ceramic/earthenware pan, usually for gudeg , a traditional and famous food from Yogyakara, made by young jackfuit. It is cooked all night to make a special effect to gudeg which dark brown and little bit sweet. Gudeg will be served by sambal goreng tempe krecek,(tempeh(fermented soybean) and krecek (cow's skin) in fried chilly sauce) which is hot and spicy and opor ayam(chicken in coconut cream). Gudeg is vey famous and always as a favourite food for national tourists. In the holiday season, the demand of the kendhil increase dratically, as the tourist come from other areas of Indonesia. Bu Partini worked with / or for her mother bu Pawirodimejo, 85 years old. Bu Partini is little bit not friendly, but her mother is very friendly, as other daughter Bu Sarjilah. They house is very closed and high density as a piece of land has been divided into several pieces, depend on the number of son and daughters. Bu Sarjilah also has own ceramic HBE in her house cross the road, different dusun. But, sometimes when she has a spare of time, she will help her mother to shape the kendhil and also before shape the ceramic, she help to mix and prepare the raw materials, as the clay need strong leg to mix in around 1-2 hours, mixed by sands.

The one of the son of Bu Pawirodimejo, Pak Sarjiman also has ceramic home based enterprises at theback of his house, or beside his mother house. Pak Sarjiman is successfull, as he can export his product, for example a quarter of container, for a lesing/trader company and the container has other goods such as mebeulair, stone craft to make the container full. Pak Sarjiman also has a 2 storey house, it shows his success in business. As he has a showroom' Restuning' who managed by his wife, bu Nita, he also has local buyer, usually from outside Yogyakarta, mostly from Jakarta.

This phenomenon, as previous phenomonen, depicts that ceramic business has a cooperation in a family relationship, sometimes share the oven or raw materials/clays. But the product and the market is different. They have certain market and buyer, and will not disturb each other.

Day 12 9 july 2011

Firstly I come to Pak Nangsib, Pak Kadus Kajen, and I interview him. But before it, I observe the Kasongan dusun. Kasongan is a high density area, and almost of the community doing business in ceramic. Almost of them are 'big' ceramic owner, as the space of HBE is quite big, and almost of them have worker for their HBE. Almost of them are relatives and family, and have a specialization, for example, pak xponakanpmarwan is expert in decoration. Some HBE owner ask him to decorate their guci on 'borongan' basis, which is means that he will get the payment on the piece which in basis of he's already decorated.

Pak Marwan has the 'ngundhi' and 'kiln in a certain place which is separated from his house. His house is in different part and his finishing and 'gudang' is in different place too. All of the process are in the same dukuh, and have relation as family. However, to get interviewed is very difficult, as he looks busy and said that his nephew pakx ponakan will explain all. And then, is clear that he is very busy, except he has 4 workers for ngundhi and bongkar, he also hire his nephew pak x ponakan. Also, according to pakx ponakan, except the regular subcontracted from Pak Timbul's, pak Marwan also have another buyer, for

example, a bule new investor who has a gudang in Kasihan, near ringroad, who order 600 piece of guci in selendang model. Pakxponakan said that the buyer of the finishing factory may assume that the gudang also as a factory.

Then, I went to Pak Nangsib, interview him and he is helpfull and said if I have any help do ask him.

Common Service Facility has afounder Relief International, As I met with mbak nDari, a local people who has already transfered the management team from facilitator of Relief International, funded by Ausaid to manage Koperasi Usaha Bersama, which has 3 function: Common Service Facilities in Bamboo, terracota and a cooperative or micro financial agency(Lembaga keuangan mikro), and village tour. For LKM, the KUB is helped by GEMI, a facilitator in manage credit. The reason to involve other partner, is the reluctance of manager of KUB in realtion to ask the repayment of credit, as all the member of LKM is their neighbour. GEMI also get a management fee for the credit management. The bamboo is one of the source fot he KUB fund, by the bamboo gate selling, it can hire several local poeple to work (3 or 4 people) plus the management (2: Pak Sigit and mbak nDari).

The member of cooperative is very small, is only 35 people out of 150-200 HBE's owner in RT 03 RT04 inKasongan or Kajen. As the first capital in 2009?? Is Rp 25 million and all has been distributed in credit for the member, the amount of credit is small and assumely it also reach for small HBEs. The problem of the small number of cooperative is also mentioned implicitly by mbak ndari as mentioned that there is no effort or program to expand the number of cooperative member. At hte first time of the cooperative is established all the HBE in RT 03 and RT 04 are invited, but only small person would like to come and join the cooperative. The meeting and th repayment is every date 4 in monthly basis. The village is also part of the activity, and since it was launched, it is already has 20 visit, it can be from family group/small or other bigger group. The basic activiy in village tour is to introduced the ceramic activity in ceramic making.

As I walk through the Kalipucang village, I stop in a house where a mother still open her clay to make soften, Bu Tri said, the clay is little bit hard, so she need to make it soften by her legs. She and her husband sell the bawangan and kuda to kraton, but sometimes bu Tri sell doll such as Ipin and Upin in alun-alun 'square 'of Kraton Yogyakarta. But every holiday season, as local tourist come to many visitor object in Yogyakarta, the pedagang asongan like Pak and Bu Tri come to offer their ceramics. But, some ceramics are also sells/titip to street trader in Malioboro Street.

I also met with Pak and Bu Suparno, who make the same products, and Pak Parno also sell to alun-alun Kraton Yogyakarta. Bu Parno mentioned about the competitors is many now, make she is difficult to sells ceramic as before the earthquake. Pak Parno also sometimes works as buruh tani or help in stuffing for his neighbour, pak Binsar, who has a finishing factory in Bali, and has a gudang near his house to keep the abangan which he gor from many HBE ceramic producer in Kasongan.

Then I met with bu Sedep and finally her husband Pak Tugiyo. Bu Sedep started to fired her kuda and anglo when I pass the road near her house. She is tough and never stop working. I saw the process to burn the mentahan, in 2 hours. It is difficult, I think because it is hot and the fog make our eyes is hot and hurt, make tears come out from our eyes. The smell of smoke also strong, but she said she familiar with it, as she burn the mentahan every Saturday and after that in the Saturday night, she and her husband will decorated the horse until 11 or midnight, and the 9 on Sunday, both of them will sell to Gembiraloka Zoo with 2 bicycles. I impressed with her toughness and looks never stop working, so she is very

productive. In a week, she can shape/ngundhi in around 100 pieces, both for kuda/gajah and anglo form. So, every month, approximately she can sell around 400 pieces...As she told me that in 3 days she can make 60 pieces of ceramics. When she sell to Gembiraloka zoo and then alun-laun Kraton Yogya, she and her husband is usually come back home at 9 at night, sometimes at 11 o'clock. Both of them has credit to bank to borrow for the ceramic HBE and has a collateral in Tittle deed. Actually they already pay all, but they now have a new credits. They are a model for toughness and dilligent people, and sometimes they do a brave step in credit, but I think thery can pay all. Also Pak Tugiyo is a worker a bigger HBE ceramic, Pak Walijoko, the owner of Loroblonyo. Loroblonyo is glazuur ceramic, a rare ceramic HBE in Kasongan. Pak Tugiyo is also has worked in Pak Walijoko, since pak Walijoko produced a earthenware ceramic, like other HBEs. Pak giyo worked from Monday to Saturday, and in Sunday he will sell ceramic to Gembiraloka Zoo.

Pak Walijoko can oven in 2 weeks period. And the regular buyer is batik keris solo, and some of Malaysian buyer in box. And he already has a management as he has 30 workers. Mbak Eka in management, Pak Sholeh in production.

The last respondent is Bu Ngadyem, she produce anglo and kodok big or small for money box. She is relatively has less production rather than Bu Sedep.

Day 14 12 Juli 2011 (in Bahasa Indonesia)

Hari ini kau ketemu beberapa orang Kasongan yang hebat-hebat. Pak Wagimin b Sudilah yang bertempat tinggal di dekat Baletama milik CSF. Keduanya bekerja di HBE mereka yang terpisah dari rumah. Awalnya HBE ada di rumah mereka, namun ketika usaha berkembang dan rumah sempit, mereka menyewa tempat usaha dekat Baletama dan sungai itu. Usaha terus berkembang, dan mereka mampu membeli tanah di samping rumah. Ketika awal mnyewa dalam jangka waktu 5 tahun hanya Rp 500. 000, namun kemudian naik lagi menjadi Rp 15 juta untuk jangka waktu 10 tahun. Selain karena sudah memiliki pekarnagan yang lebih luas dan sewa cenderung lebih mahal, mereka berniat memindahkan usaha mereka lagi di samping rumah, termasuk membangun tungku di dekat rumah, karena sekarang lahan sudah luas. Selain melayani order Pak Timbul, mereka juga melayani pesanan showroom depan jalan. Pak Wagimin merupakan kakak dari mbak Suratiyem, sehingga awalnya merupakan spesialis meja kursi besar. Rumah mereka seberang mbak Suratiyem, memiliki warung kecil juga yang dibuka sore, ketika b Sudilah ada di rumah.

Yang kedua pak Pur, awalnya pak Pur tidak mengaku sebagai Pak Pur, tapi mengaku sebagai pegawai ibu Pur. Tampak workshop yang cukup besar, namun pekerja hanya 1 ditambah pak Pur. Mereka sangat ramah. Sampai akhirnya Bu Pur cerita kalau dulu usaha ini sangat maju, sempat memiliki pegawai 25 orang. Dulu selalu rutin mengirim barang ekspor, seperempat container per bulan, belum yang lain. Ketika usaha diawali tahun 1980an, kemudian mengalami masa jayanya 1993-2003. Namun kemudian surut karena eksportir yang rutin mengirim mengalami masalah dalam ekspor, yang bukan karena kesalahan Pak Pur. Sempat akan bangkit lagi, sesaat sebelum gempa, ketika sempat meminjam Rp 20 juta ke BRI, namun ketika gempa nilai barang senilai Rp 50 juta yang akan dikirim hancur, sehingga mereka harus membayar kerugian dan hutang. Sempat akan bangkit lagi setelah adanya sampel barang senilai Rp 10 juta sudah dikirim, namun ekspor tidak jadi dilakukan karena negara tujuan ekspor kemudian mengalami gempa(Spanyol). Sampai saat ini untuk mengembalikan masa jaya sangat sulit. Sempat mengajukan pinjaman ke Koperasi Setyo Bawono, dan sudah mengagunkan sertifikat, namun karena dana tidak turun2, akhirnya B Pur mencabut permohonan pinjaman karena malu/tersinggung selalu ditolak. Ketika

ditanyakan mungkin karena harus antri bu, namun Bu Pur merasa mungkin mereka sudah tidak dipercayai lagi untuk mampu membayar. Walau sedang mengalami masa sulit, Bu Pur menunjukkan ketangguhannya. Beliau merasa sedang di bawah, ibarat roda, dia sedang di bawah. Oleh karena itu, beliau sedang berusaha mencari cara untuk kembali lagi, namun tidak memaksa. Yang paling penting buat beliau adalah kesehatan....

Kemudian ketemu B Suparmi, yang sedang membuat meja kursi yang besar. Suaminya bekerja sebagai sopir carter, sekaligus memelihara sapi, dan anak2 sudah besar, kuliah dengan beasiswa dan bekerja part time di toko dekat TVRI, sedangkan adiknya di SMK Bambanglipuro. Setelah gempa, mereka menjual mobil carry setelah dipastikan tidak memperoleh dana rekonstruksi gempa, karena rumah hanya retak. Dari harga beli 31 juta hanya terjual 22 juta, sebagian dana utk membeli sapi, dan sampai hari ini sapi bisa beranak 2 dan menjadi tabungan. Mending pinjam ke KSB untuk sekolah anak2, dan menunggak, tapi ketika sapi beranak dan anaknya bisa dijual, kemudian untuk melunasi mereka kemudian menjual anak sapi dan bisa melunasi hutang. Hanya kendala teguran Bapedalda datang untuk sapi yang dipelihara di dekat rumah. Alasan mengganggu tetangga, namun suami bu Parmi ngotot kalau perlu diajukan ke pengadilan. Ketika membicarakan hal tersebut, tetangga sebelah bu Parmi membuka jendela. Rupanya ada ketidaksukaan dari tetangga karena kandang sapi tersebut.

DI rumah Bu Tumilah, anaknya mbak Atun mburuh kundhi, bapak dan ibu sedang menyiapkan bakaran. Merahan kemudian disetor di showroom depan. Tenaga kerja adalah anaknya sendiri. Rumah hanya retak dan tidak memperoleh bantuan. Ketika saya tanyakan tentang bantuan, serentak bapak ibu dan anak menyatakan tidak mendapat apa-apa. Tiap bakaran bisa sampai 300, terutama gawangan kecil. Dulu pas gempa, gawangan yg sudah dicat pada hancur, ada juga yang ada di tungku juga hancur,sehingga kerugian cukup banyak. Bahkan ketika habis gempa ada pendataan kerusakan, janjinya akan diganti, namun ternyata tidak ada penggantian apa-apa. Bu Tumilah dulu sempat kerja di Bu Pur selama 5 tahun, sekitar 5 orang perempuan yang bekerja ngundhi disana. Namun sekarang Pak Pur bangkrut, karena tidak ada yang membeli lagi(menurut Bu Tumilah). Dulu sebelum gempa Bu Tumilah merintis membuat usaha gerabah dirumahnya setelah jam kerjanya di Bu Pur selesai. Bahkan kemudian bisa membuat usaha sendiri.

Kemudian saya ke Bu Supari ngledhok, yang habis kerja. Bapak dan ibu bekerjasama membuat. Bapak kemudian membakar dan mencat, bahkan bersepeda menjual ke gembiraloka dan alun-alun kraton, untuk diasongkan. Kadang ada juga yang dicari dan dibeli oleh pedagang alun-alun kraton. Anak perempuan yang pertama juga ikut membantu ibu. Sedangkan anak kedua sudah lulus dari SMK Busana, dan sekarang sudah bekerja. Saat gempa, bagian dapur hancur, dan kaki Bu Supari tertimpa bata, sehingga sempat tidak bisa berjalan, dan perlu pemulihan waktu yang cukup lama dan masih ciri.

Mbak Atun, memiliki rumah dekat bu Supari, dan kalau siang bekerja di rumah ibunya Bu Tumilah. Suami mbak Atun kerja di rumah wuwung Pak Sarijo yang pegawainya 5 orang/dekat pak Sariman. Kalau malam, suami mbak Atun membuat wuwung untuk disetor ke Pak Sarijo atau membuat hiasan di rumah ibunya bu Tumilah.

Appendix C: List of Respondents

No	Name	Type		Market	Family Member	Non Family	Facility	Income (in Rp)	Education	Financial Source	Revival time
1	Parjiyanti	Production and selling	mentahan	Local	2	0	No kiln	Below 1 million	SD	No credit	12 month
2	Surat	Production	abangan	Local	4	0	Kiln	1-1,5 million	SMP	Credit with KSP Setya Bawana	3 weeks
3	Rubiyanti	Production	mentahan	Traditional	1	0	No kiln	Below 1 million	SD	Credit with KSP Setya Bawana	6 months
4	Umini	Production	mentahan	Local and Internationa	2	2	Kiln	1-1,5 million	SD	Credit with KSP Setya Bawana (	2 weeks
5	Sutinah	Production	abangan	Traditional	2	0	Open Space	Below 1 million	illiterate	Credit with KSP Senin Kliwon	2 weeks
6	Mul	Finishing and selling		Local	0	0	Kiln	Below 1 million	illiterate		
7	Surit	Finishing and selling		Local	0	0	No kiln	1-1,5 million	SMP	No credit	6months
8	Sariman	Production, finishing, and selling		Local	0	15	No kiln	>5 million	SMA		2 months(but
9	Yanto Keramik	Production, finishing and selling		Local and Internationa	50	50	Kiln	>5 million	Universit y	No credit	1 week
10	Pairan	Production, finishing and selling		Traditional and Local	2	6	Kiln	1-1,5 million	SD	Credit from family	1 month
11	Wiranti	Production	abangan	Local	2	0	No kiln	Below 1	SD		2 months as
12	B. Ning	Production	abangan	Local	2	0	No kiln	Below 1	SD	Credit (from	7
13	Triyanto	Production, finishing, and selling		Local	3	2	Kiln	1-1,5 million	SMA	Credit from bank(instant) and KSP Setya Bawana	3 months
14	Sarjiman	Production, finishing, and selling		Local and Internationa	4	10	Kiln	>5 million	SMA		
15	Pawiro dimejo	Production and selling		Traditional	2	0	Open space	Below 1 million	illiterate	no	2 months
16	Parini(daughter of B Pawiro dimejo)	Production			0	0	No kiln	Below 1 million	SD		6 months
17	Nangsib	Production	abangan	Local and Internationa l	0	3	kiln	>5 million	SMP	Credit from Bank	3 months
18	B Tri /P Suparjo	Production, finishing,		Local	2		Open space	Below 1 million	SMP	no	1 month
19	P Suparno	Production, finishing,		Local	2	0	Open space	Below 1 million	SD	no	3 weeks
20	B Mujaibah	Production	mentahan	Local	2	0	No kiln	Below 1 million	SD	Credit from KUB	4 months
21	Kertowiyadi Ponimin	Production, finishing,		Local	4	0	No kiln	Below 1 million	SD		3 months seng tripleki
22	B Waljinem#	Production	mentaha	Traditional Local	1	0	No Kiln	Below 1 million		Credit KUB	7 months
23	Suratiyem	Production	mentahan	Local	3	0	No kiln	1-1,5 million	SMP	cRedit KSP SetyaBawana	1 month
24	Tartono	Production	mentahan	Local and Internationa l	2	0	No Kiln	1-1,5 million	SMP	No from saving only	Buruh 6 months
25	MArsinah	Production		Traditional and Local	3	0	Kiln	Below 1 million	SD		6 months
26	Ngatijan	Production	mentahan	Traditional	2	0	No kiln	Below 1 million	illiterate		6 months
27	Painem	Production, finishing,		Traditional	2	0	Open space	Below 1 million	illiterate		1 months
28	Joko	Production	abangan	Local and Internationa l	2	0	Kiln	Below 1 million	SMP		
29	Sumedi.Endri	Production	abangan	Local and	2	1	Kiln	1-1,5 million	SD	Credit from BRI	3 months seng tripleki
30	Wardani	Production	mentahan	Local	2	0	No Kiln	Below 1 million	SMA	Credit from KUB	Mburuh setahun

31	Sri	Production, finishing, and selling		Traditional and Local	0	4	Kiln	Below 1 million	SD	KSP Setya Bawana
32	Ponidi	Production, finishing,		Traditional	0	3	Kiln	3-5 million	SD	KSP Setya Bawana
33	SIsut	Production	mentahan	Local	0	1	No	Below 1 million	SD	No
34	Mujiyem	Production	abangan	Traditional and Local	0	3	Open space	Below 1 million	SD	no
35	Suparmi	Production	mentahan	Local	2	0	No kiln	Below 1 million	SD	No but have cow, for school fee
36	Ngadiyem	Production	mentaha	Traditional	3	0	Open	Below 1	illiterate	Yes setya
37	TImbul	Finishing and selling		Local and Internationa	0	80	No kiln	>5 million	University	Bank an cooperative, grant from
38	Paryanto	Production	abangan	Local and Internationa	2	2	Kiln	Below 1 million	SMP	Credit from bank
39	Giyono	Production, finishing, and selling		Local and Internationa	1	2	Kiln	1,5- 3 million	SMA	Credit from bank(instant)
40	Ponijem	Production, finishing, and selling	abangan	Local	3	1	Kiln	Below 1 million		
41	Mitro	Production, finishing, and selling		Traditional	2	0	Kiln	Below 1 million	illiterate	
42	Partinah	Production	mentahan	Traditional	2	0	No kiln	Below 1 million	illiterate	
43	Sugiyem and mbah Situm	Production	mentahan	Traditional and Local	4	0	Open space	1-1,5 million	SD and illiterate	
44	Wagilah	Production	mentahan	Local	2	0	No kiln	1-1,5 million	SD	
45	Temu/Sudiyono	Production, finishing, and selling		Traditional and Local	2	0	Open space	Below 1 million	illiterate	Credit from bank(bankrupt)
46	Tumilah	Production, finishing, and selling	abangan	Local	3	0	Kiln	1-1,5 million	SD	
47	Mbak Atun	Production and finishing	abangan	Local	1	0	No kiln	Below 1 million	SMP	
48	Pak Tugiyo/B.Sedep	Production, finishing, and selling		Traditional and Local	2	0	Open space	1-1,5 million	SMP	Credit from KSP Setya Bawana and Bank
49	B Supari	Production, finishing, and selling		Local	3	0	Kiln	1-1,5 million	SD	yes
50	mBak Nur	Finishing and selling		Local	6	0	No Kiln	>5 million	SMP	
51	Pak Ribut	Production, finishing, and selling		Traditional	2	0	Open space	1-1,5 million	illiterate	Credit from KSP setya Bawana
52	Pak Marwan	Production, finishing, and selling		Local and Internationa	3	4	Kiln	1,5- 3 million	SD	Credit from bank
53	P Wagimin/B Sudilah	Production	abangan	Local and Internationa	7	2	Kiln	1,5- 3 million	SMP	No

PROFILES OF HOUSEHOLDS (SAMPLES)

A. **Profile of Bu Tumilah and Mbak Atun, her daughter**

Typology of HBE

Previously Bu Tumilah was a worker in Pak Pur's HBE. But, with the decline of Pak Pur's HBE, Bu Tumilah concentrated on making her own ceramics. Bu Tumilah makes small 'bawangan' or vases for umbrellas or artificial flowers. She makes ceramics with her daughter, who has married and lives in another house.

Bu Tumilah buys the raw materials, shapes the clay and makes the detail or ornament with the help of the son-in-law, husband of mbak Atun, firing it out with their own oven helped by Bu Tumilah's husband. The worker is their own daughter, and paid according to the 'borongan' system. Bu Tumilah would have to pay Brebes workers 2000 rupiahs to make a vase with a height of fifty cm. But the daughter is cheaper. Bu Tumilah sells 'abangan'(already fired) ceramics and sells to the showroom in Kasongan Main Road. The house of mbak Atun is located around 200 metres away, nearby mBedog river.

The relationship with other HBEs

The HBE is relatively independent, but it has links with the showroom in Kasongan Main Road. The HBE's production is very high, as the showroom always requests 'abangan' ceramics. During the low peak season, for example, when Mt Merapi erupted, they made stock and after one or two

months they were still not all taken by the buyer. The regular buyer is the showroom on Kasongan Main Road.

The typology of HBE

The HBE provides 'abangan' ceramics which require a finishing step to complete them. The HBEs shape the raw ceramic, firing it out and sell the 'abangan' ceramic. Bu Tumilah and mbak Atun work hard. Bak Atun lives with Simbah, the parent of Bu Tumilah.

The worker of the HBE

The worker is mbak Atun during working hours and also Bu Tumilah. The firing is done by the husband of Bu Tumilah. The husband of mbak Atun works in Pak Sarijo with the twin brother of Pak Sariman who makes 'wuwungan'or ceramic horn of roof top, and also makes another

'wuwung' after working hours in his house. In the Pak Sarijo are made wuwung with a gipsum model, and then ornaments are made by hand. Mbak Atun's husband also helps to make ornaments for Bu Tumilah when it is required.

The market of the HBE's product.

The market of the HBE's product is the local market, as it is taken by the showroom in Kasongan Main Road.

The income of the HBEs

Every month Bu Tumilah sells around 500 pieces of 50cm 'bawangan' at a price of Rp 3000 per piece.

The oven is available, and it is used fortnightly with a capacity of around 250 pieces of bawangan every time the kiln is used. So the gross income is around 1.5 million rupiahs, minus worker costs.

The plot of land is used for the HBEs. The shaped, dried and decorated ceramics are placed in the terrace and the side terrace. The kiln is placed in the terrace and at the back of the kiln is a storage area for wood.

The recontruction process was limited, as the damage was limited to only a soft crack on the wall. But they were afraid to live in the house, as the next and second earthquake that had a smaller magnitude occurred. However, when I asked about the form of other support or help, they were critical and found that the help or support offered was not appropriate as the beneficiary was wrong, for example, the oven or kiln that was given to the HBE which was not able burn the raw ceramic.

Bu Tumilah started to work at her HBEs after she finished to work in Pak Pur's HBEs, which began in the year 2000.

Assets

Human Capital

Bu Tumilah reached SD or elementary school level, and mbak Atun

reached SMP or junior high school level. The work of the HBE of Bu

Tumilah is carried out by herself, her husband and her daugher. Her second daughter is already married and she follows the husband in the other house. By having a grandaughter from mbak Atun, Bu Tumilah sometimes gives money for the grandchild also, excluding the worker's costs of mbak Atun for the ceramic shaping.

Physical capital

The house of Bu Tumilah is very accessible, as the road in front of the house is asphalted and relatively wide. In doing so, many buyers from showrooms in the Kasongan Main Road regularly come, order or pick up her product.

B. **Profile of Pak Timbul Raharjo(Timboel Ceramics)**

Other Source: interview, www.timboel.blogspot.com, his three books

Typology of HBE

This HBE (Timboel Karamik) is recently a leader in Kasongan's area. It has 80 workers and has one workshop or factory and three other galleries in Kasongan and one in Bali. Timboel Keramik is a prominent ceramic Home Based Enterprise. According to his book in Globalisasi Seni Kerajinan Kerajinan Keramik Kasongan (The Globalization of the Art on Kasongan Ceramic Handycraf, 2009), Pak Timbul Raharjo, a Doctor and Lecturer of Art Institute in Yogyakarta(ISI), established Timboel Keramik on the 10th August 1996 in Kasongan, Tirto-Bantul, Yogyakarta. As the development of the HBE, Timboel Keramik also diversify by producing other handycraft products in bamboo, metal or coconut tree. The peak of this HBE was evidenced by the workers being 150 persons and around sixty persons as subcontracted/suppliers of 'red ceramic' before finishing.

On one particular day, Pak Timbul and his wife transported a box of products by motorcycle to a different city 50 kilometres away. At the first, the workers consisted of only two persons plus his wife. From the small business which needs a rented showroom in 3 x 6 square metres, the ceramic HBE grew and have produced ceramics amounting 20 containers each month. However, the global crisis, particularly the European crisis also impacted on the decrease of exports significantly (Raharjo, 2009).

In the workshop next to the homes, which occupies around 7000 metres squares of land, firstly the raw ceramic is shaped, then it is burnt out,

then finished and finally packed in the factory/workshop. Around 7000 square metres have been divided into several sections, into a workshop for shaping with rotating technique, secondly a dried room, thirdly a

storage room, the fourth has a kiln or oven, the fifth is for finishing and finally, there is the packing room. The arrangement is in sequence, based on the work flow (Raharjo, 2009b).

However, the production is then subcontracted and the workshop concentrates on the finishing. According to the Head of UPT Kasongan (interview, 2011), the subcontracted method is preferable, due to it being more efficient. The best 'abangan' or unfired ceramic produced by subcontractor ceramic is subject to selection for Quality Control (QC) of Pak Timbul's HBE, and so the production costs and risk of damaging the product is avoidable. Sometimes, some products are rejected if a certain product was not selected by the QC, for example, due to the product having a soft crack, or the lack of precision of the dimensions of the order. So, recent ceramic HBEs are focussed on finished ceramic product.

The relationship with other HBE



This HBE has a close relationship with other ceramic HBEs, in particular because fifty other HBEs are suppliers for Timboel Ceramics. Pak Budi in Kasongan is one of the regular suppliers for Timboel Keramics. One approach of the subcontract is having a certain design that has been designed by a supplier, so Timboel Keramik will order the certain design from the supplier when an order has come in. Pak Marwan is also one of the suppliers. Both Pak Marwan and Pak Budi are productive, as there is such a large quantity of products that not only supply Pak Timbul but also many others. Pak Paryanto is also one of the suppliers, but did have difficulty shaping/forming the 'mentahan' raw ceramic, as the shaper workers from Brebes or Purwakarta were working as builders or carpenters in Jakarta on a temporary basis, so the order could be accepted because of fear of charges for failure to fulfil the order.

Income Source

As a lecturer in Art Institute of Yogyakarta, Pak Timbul has a good and regular income. However, as his particular interest is to have his own enterprises along with his art background as well as being supported by his wife, bu Ani, who is experienced as hotel worker with good English, Timboel Keramiks is well developed and provides many jobs for the local people.

The typology of HBE

The HBE is a finishing and marketing enterprise, so it can be classed as 'market oriented'. The new gallery beside River mBedog which has a dimension of around 100 x 40 square metres is very well planned and is designed to attract new buyers, including Indonesian people. The gallery is facilitated by a cafetaria with a river view. This new gallery is a new

additional showroom, besides the previous one in the centre of Kasongan village. Timboel Keramik also has one branch in Bali, and previously planned to open a new branch in Makasar, but after a feasibility study, the plan was cancelled as the transport costs would be too high as it cross the sea.

The worker of the HBE

Compared to the peak of business with around 150 workers, nowadays, there are around eighty workers, and they work in shifts: working in three days each week. As the orders have decreased significantly due to the global crisis, eighty percent of international production has now decreased sharply, and it cannot be subtituted by local/domestic orders. In doing so, the capacity of production has reduced.

The income of the HBEs

The income of the HBEs not only can support Pak Timbul's family, but also the workers and his suppliers. As Timbul Keramik became a Perseroan Terbatas or Limited (Ltd), a business with a legal body, the income is relatively big and managed professionally.

There are many kilns: four small ovens in the packing and stuffing room and the other one which is bigger next to the finishing areas. However, now the oven is not used for efficiency reasons. The supplier has provided 'abangan' ceramics and only needs finishing jobs.

The space used for HBE besides the workshop or factory and office is the house for Pak Timbul's family which uses the same gate, but are separated areas. Around 500 square metres of space is occupied for domestic usage or housing, from the total area of around 8000 square metres plot of land.

The recontruction process was typical of others to include emergency housing with other families, temporary housing with triplex and asbestos roofs and finally the permanent housing rehabilitation with the help of the government with funds of 15 million rupiahs.

But as a successful entrepeneur, it is not important for Pak Timbul, as his house underwent only minor damage. However, Pak Timbul gave appropriate attention to his workers, as the buyers have sent him some funds to donate to the workers' housing reconstruction. The funds collected came to 500 million rupiahs which is not a small amount of money, and it was all given to the workers.

Pak Timbul also has a certain mechanism for the post earthquake rehabilitation of his workers. After the earthquake, he gathered all the workers and asked them all to go to work, and to do anything in the factory/workshop without work, but they were still paid. In a certain phase of the rehabilitation, several workers showed they were under stress by getting angry or fighting with each other, and then Pak Timbul requested a Psychologist's consultation.

Assets

Human Capital

Pak Timbul is well educated, reaching the highest level, a doctorate, from Gadjah Mada University. For him, education is very important, reflected by his son who also got into the best high school in Yogyakarta City. The family is very dedicated. Many awards have been given to Pak Timbul, for instance, as the fourth best entrepeneur in Indonesia, the best repayman of BNI Bank, and UPAKARTI award 2007, an award from President of the Republic Indonesia. He is also as a leader of Koperasi Setya Bawana, a cooperative in the Kasongan Area, which has capital of around 1 billion rupiahs. Pak Timbul is also frequently invited as a seminar speaker and motivator and also writes several books about Kasongan Ceramics and SMEs.

Social Capital

He is an influencial person in Kasongan, as his leadership can inspire other HBEs in Kasongan, and he has support to be elected become a leader of Koperasi Setya Bawana, even though he is relatively young. He has many professional connections with others including his many suppliers to his HBE.

C. **Profile of the Pak Pur**

Typology of HBE

Previously Pak Pur HBE was big, but when I visited the house, I only found one worker from Brebes, and Pak Pur was also working on a craft, a gigantic guci. The spacious workshop looks full with the gigantic guci, but not many people work there. A big oven is located near by the river but seems to have no activity.

Relationships with other HBE

The HBE is relatively independent, as it has no longer has a link with the previous buyer. The previous buyer was made bankrupt, and the HBEs was highly impacted by this. The most recent connection was with Pak Timbul, however, on one occasion Pak Paryanto rejected the order, as the worker from Brebes could not come due to their work commitments as carpenters and workers in the development project in Jakarta. However, before that, Pak Paryanto rejected the Brebes worker asking to work as a ceramic shaper in Paryanto's HBE. But, during that time of period, there

were no orders. As bu Paryanto said, their HBE is highly reliant on the Brebes workers, as they themselves cannot shape a gigantic ceramic. The previous buyer left before the earthquake, and after that they tried to create another huge production using the credit from the bank of 20 millions rupiahs. But during the night of the earthquake, the ceramic products with a value of 50 millions rupiahs were damaged by the earthquake. Recently, they received a sample order from Spain worth 10 million rupiahs, but then an earthquake struck the area, so the next order was cancelled. So, on several occasions, the HBE tried to be re-established and produce as before, but it was burdened by the the limitations of the market and the human capital/skilled person.

Income Source

The home based enterprises in the Pak Pur house are the source for all the income for the family, so when the ceramic HBEs cannot work as before, it makes the family suffer. They already had a two storey house before the earthquake. The land of the house as a result of the booming and golden era of their HBE. However, now it is very limited as the production capacity is low. Even to provide for the education of their first son, they had to borrow gold from relatives to pay for him to attend art high school. Recently, Bu Pur had an accident when she went to drop off her last child (second daugther) at her school which resulted in a breakage to her arm bone. As the rehabilitation for the bone cost nearly 20 millions rupiahs for two operations, she chose to fix her bone by alternative rehabilitation, namely, 'Sangkalputung' for massage, an alternative bone rehabilitation. On the second visit, Bu Paryanto was in better condition and looked fine, was able to walk and help with Pak Paryanto's job.

The typology of HBE

The HBE provides 'abangan' ceramics and needs a finishing step. The HBEs shaped the raw ceramic, fired it out and sold the 'abangan' ceramic. However, Pak Paryanto cannot shape the gigantic ceramic by himself, which is the typical HBEs phenomenon, nor can he make a smaller one. His brother who lives nearby in Pak Paryanto's house, Pak Wardani, who previously also worked for Pak Paryanto, currently makes a 'cetak' ceramic in his house, for art ceramics or vases. The 'mentahan' will be taken by the buyer to be fired out to make the ceramic. For Pak Paryanto, he cannot adapt to other forms of ceramic, so he relies on the gigantic shape, which is not his own particular skill.

The worker of the HBE

The worker numbers have reduced from 25 at the peak of the business to one nowadays. The business peaked during the period, 1995 from the period of 1992-2003, where the business grew from only one buyer to produce a quarter of containers each month. Since the buyer broke up the contract, Pak Pur suffered the impact.

The market of the HBE's product.

The market of the HBE's product previously was an international market, but as the business of his exporter ceased, he suffered the impact in terms of access to the international market. The collapse of orders after the earthquake of 2006 also occurred. When other foreigner also try to open a new market, another disaster (earthquake) came in the exported destination.

The income of the HBEs

The huge plot of land is used for the HBEs. The two storey houses are not used optimally, as the second floor is empty, due to the trauma after the earthquake. Even though there was no damage due to the earthquake, the trauma and the soft crack made the family member afraid to occupy the second floor. There is a huge workshop at the back. So more than fifty percent of the house is used for ceramic activity. One of the small showrooms near Pak Subur gallery in the Kasongan Main Road, has not been used, but it is rented by the mother of Pak Pur. During the earthquake of 2006, the showroom had been destroyed but, the rehabilitation fund of 15 millions rupiah rebuilt the showroom on behalf of Pak Paryanto. However, it is for rented for pak Paryanto' s mother for extra income.

D. **Profile of Bu Supari, and her husband pak Wakidi**

Typology of HBE

Bu Supari make the 'bawangan' with her daughter on the working hours, who live separately with husband and one daughter. Pak Wakidi, her husband, who has a duty to transport the ceramic directly to the buyer, for example to sell in Alun-alun, the public space, which located in front of the Sultan Yogyakarta, King of Yogyakarta, Palace both holiday season or weekend. On the other day, Pak Wakidi has a duty to mould animal money box, firing it on the own oven at the back of their house, nearby the mbedog river, and also do finishing the 'abangan' ceramics.

The relationship with other HBE

Bu Supari's HBE is independent, as there is no link with other HBEs. The relationship with HBEs neighbours is close. For example, when Mbak Situm will fire the 'kendhi' and the' anglo', traditional pan and stoves in the small yards nearby their house, all the neighbours included Bu Supari and mbak Wagilah help to prepare in arrangement of the ceramic and

wood for energy. Every afternoon, after the working hours in 4 o'clock, all the neighbourhood will meet and have a chat in a big seats or bench nearby the river, under bamboo plants. The connectedness seems clear, as they always help one anothe

Income Source

The income of Bu Supari is used for everyday life, so it seems for survival. However, Bu Supari said that a relative significant expenditure are usually spent when a wedding season. Any certain period of time is believed as


a'good season' for wedding or circumcision party for Javanese people. Therefore, at the peak season for several weeks, a family can get 4-5 invitation for wedding party just in one day, which means that the family should donate 40-50 thousands rupiahs for ' sosial' or social aim. A person can be invited by the giving a set of meals to their house of whom are invited. To respond, the invited person should come and give the donation for the parent's of newlywed couple


on the party event.

Bu Supari and Pak Wakidi has 2 daughters, the first has married and the second daughter is just graduated from high school with specialization(in SMK) in fashion, meanwhile the second daughter prefer to work in T- shirt garment in Kauman Yogya, nearby Kraton Yogya(Yogyakarta Palace).


The worker of the HBE

Bu Supari, her first daughter and Pak Wakidi works for their HBEs. Without any non-family workers.

The market of the HBE's product.

The market of the HBEs product is local, domestic and traditional markets, and transported traditionally, by bycicle. Pak Wakidi transport around 20 animal money boxes and 'bawangan' vase to the city, every weekend. At his younger age, Pak Wakidi can ride his bicyle to transport the products 20-30 kilometers far away from his houses. However, now he only can ride up to 10 kilometres.

The open oven is available, nearby the mBedog River, and is used around every 2 weeks.

The plot of land are used for the HBEs at the kitchen and backyards. The shaped, dryed and decorated ceramics are storage in the empty house nearby, owned by Pak Wakidi's brother.

The recontruction process in post earthquake is typical with others, emergency tent with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the financial assistance of government in 15 million rupiahs. Their house damaged after the earthquake, particularly the kitchen. The debris of wall has hit and broken the leg of Bu Supari, made she need to be transported by keser to move and run when the issue of tsunami come to the hilly areas. Until now, sometimes the leg is still painfull.

The condition before the earthquake is the same than nowadays condition, as the production capacity is the same, only fluctutate based on season. The selling peak season is on the school holiday and Eid Fitr, and end of the year seasons. However, they feels that even the production is the same, but the real income tend to decrease, as the price of daily life increase, when they sell on the same price for several years.

Assets

Human Capital Bu Supari s elementary school, however, all the daughter are graduated from relatively higher school level.

Social Capital, the bounding with the neighbour is very strong, particularly in surrounding areas. When, someone need a help to fire the raw ceramics, all the neighbour will stop their activity to help the person who will firing the ceramic out.

Physical capital in the house of Bu Supari, Bu Wagilah, mbah Situm is not very accessible, as the road is narrow. But in around every 6 months, a small truck transports mbah Situm'kendhil' production to Jakarta. The parking location is close the mbedog River.

Natural Capital is a raw material is abundance by buy the raw material.

E. **Profile of Bu Sedep**

Typology of HBE

Bu Sedep is a mother of 2 children, (a daughter 30 years old and a son, around 26 y.o, already married and live with his wife in another areas).

Nowadays, the typology HBE in Bu Sedep is in traditional and local product, as the production is 'keren' and 'anglo', traditional stove for 'angkring' seller, a traditional food retailer (a wrap of rice or fried snacks) and need anglo for hot water cooking for tea or ginger drinks. The HBE also make the animal form for money box, and the couple sell the animal shaped money box to Gembiraloka zoo or alun-alun utara, a public space in front of Javanese Kingdom Palace in Yogyakarta. Bu Sedep has a routin schedule weekly, every Monday to Wednesday, she make traditional stoves, and every Thursday and Friday she make the animal shape money boxes. On Saturday, she will firing the raw ceramic become 'abangan/merahan'(red) ceramic without finishing process in 1,5 to 2 hours in open space in front of their house. At Saturday night, after the ceramic is cooling down, she and her husband will paint the ceramic. Then, on Sunday, the couple will ride their bicycle to transport and sell the money box directly to buyer visit the Gembiraloka Zoo or alun-alun.

The relationship with other HBE

The relationship with other HBE is indirectly, as her husband, Pak Tugiyo, is working in other HBE, in Sanggar Loro Blonyo, with the owner is their relative and lives nearby their house. Pak Tugiyo starts to works in Sanggar Loro Blonyo since 1990s.

Bu Sedep previously has a relative big HBE, as the production of her ceramic HBE is in gigantic model, and can have 2 workers from Brebes and her sister also worked on her HBE at that time. At that peak of her business, she feel easily to get money, and she can also pay the education for her son in a relatively high level: university student, however unfortunately, her son cannot finished the university level, due to he was

married and have to work to support his new family. Bu Sedep dauhgter cannot have education as she looks not able to follow education(disable).

Income Source

The Home based enterprises in Bu Sedep's house is a part in contributing income for the family, as the husband also works in Sanggar Loro Blonyo, the owner is Pak Walijoko.

The typology of HBE

The HBE is a complete one, as the owner has produce the raw ceramic, firing it out, doing finishing and sell it outside by their hand.

The worker of the HBE

Since the gigantic model has no more buyer , and bu Sedep was then back to produce traditional ceramic, she did not need to hire worker anymore. She almost working alone, but still was helped by her husband to do finishing. Sometimes her daughter is helping but she is not able to work fulltime.

The market of the HBE's product.

The traditional stove,anglo and keren has already buyers to resell in traditional market. They already knew her and regularly come to get Bu Sedep product, on weekly basis. The other product in animal shaped money box is marketed by the couple to the destination tourism in Yogyakarta particularly in zoo park and palace. So the service area or the markets are local, to local/domestic tourists.

The kiln is not available, but Bu Sedep are able to fire it in the yard. The benefit to fire it in the yard is quicker, as it only need 1,5 – 2 hours, and it is cheaper as it does not need wood, only organic waste. However, the disadvantages are the polution made by this method of firing.

The space used for HBE is around fifty percent for the economic activity, and the rest for domestic activity.

The recontruction process is typical with others, emergency housing with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the help of government with 15 million rupiahs.

Bu Sedep starts operated her HBE by herself by learn from neighboura to make ceramic at home and several buyers from other cities are also looking for many gigantic guci. But at the starts, she produce what her parent produce in traditional stoves.

Assets

Human Capital Bu Sedep has a SMP level, a secondary school level. She is very tough and looks have a self reliance. With her skills, she trying hard to get money as much as possible. One of the motives is to repay her debt on bank, as she can pay the first debt, and now she want to repay again. She works every day, and looks never tired. But one day, after she sells the animal shaped money box, she got an diarrhea, and need a rest all the day in next Monday, she only can sleep near her raw ceramic.

(All the photos of families has been taken in field work 2011, however, at the second fieldwork in 2013, the husband has just passed away a week before. So, Bu Sedep then work alone to produce ceramics and also to transport and sell to town.

F. **Profile of Mbak Wagilah**

Typology of HBE

Mbak Wagilah makes 'bawangan'(a vase shape) for the neighbour called pak Triyono. She is actually can makes other products, as she got the dilemma, when her sister ask help for making another 'bawangan' for her sister.. Mbak Wagilah can works so fast, and she also has to care her children who starts the elementary school this year.

Her husband is a worker in Pak Sarijo wuwung asri, a twin brother of Pak Sariman. Every day, he works in a pinching tehnique of gipsum model,and then after working hours at home, the husband also makes another mentahan' wuwungan' for pak Priyono, a new enterpreneur in wuwungan nearby them. Previously Pak Priyono as the worker in Pak Sarijo's HBE, but then he has a money, he can make own HBEs.

Mbak Wagilah and her husband is very dilligent, hard workers. All of them make a 'mentahan' ceramic, to supply the 'juragan' or bos to firing and or finishing it and sell all the ceramic product.

The relationship with other HBE

Mbak Wagilah's HBE is dependent, as there is link with other HBEs in production chain or flows, or in the business. Like Bu Supari and Pak

Wakidi, the relationship with neighbour HBEs is in social ad family relationship, not in business. Mbak Wagilah also help, for example, when Mbak Situm will burn the kendhil and the anglo, traditional pan and stoves, in the small yards nearby their house, and also her mother, in around 100 meters from her house. Like others, she help to prepare in arrangement of the ceramic and wood for energy. And sometimes in the afternoon, after the working hours in 4 o'clock, she joint to meet and have a chat in a big seats nearby the river, under bamboo plants, with a cool air, due to the view of paddy rice farm in the other side of river.

Income Source

The income of the households is enough as they works so hard and productive. The only one son are in a good care and education in SD Kalipucang. The son goes to school by bicycle,as the school is not far from the house, in around 1 kilometers from house. The traffic is not busy, so it is not dangerous for children.

The worker of the HBE

The couple is the workers of the HBE in mentahan ceramic.

The market of the HBE's product.

The market of the HBEs product is local/domestic markets, and transported traditionally, by 'keser', a traditional transportation mode for goods with the human energy, like a box with 2 wheels. Bawangan of mbak Wagilah then firing it out, then finished it, after it is painted or any decoration like sands, the ceramic are sent to East Java by a truck or pick up car. However, the same market are for wuwungan, as it is transported to other cities. It can reach hundreds kilometers from Kasongan.

The oven is not available, all the mentahan ceramic sent to the 'juragan' or boss, the person who order the mentahan.

The plot of land are used for the HBEs at the terrace and in the kitchen. The shaped, dryed and decorated the ceramic are in house. However, when the flood inundated the terrace and kitchen, it was disturb the HBE activity.

The recontruction process is typical with others, emergency housing with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the help of government with 15 million rupiahs.

Assets

Human Capital mbak Wagilah has an elementary school background, however, all the daughter are graduated from realtively higher school level.

Social Capital, bounding with the neighbour is very strong.

G. **Profile of the Pak Marwan**

Typology of HBE

Pak Marwan live in dusun Kasongan, the origin of gerabah Kasongan

The relationship with other HBE

The HBE is independent, as it has link with many HBEs or buyer. Pak Marwan is one of the supplier of Timbul Keramik, however, he did not rely in Pak Timbul HBE. With his design, Pak Timbul give the order to pak Marwan, in a certain design. However, the decrease of export market also decrease the order from pak Timbul to his HBEs. He is one of the supplier for a foreigner own of finishing enterprises in other area in Bantul, not in Kasongan area. The enterprises has a gudang and factory nearby southern ring road, Yogyakarta, and Pak Marwan recently has an order in 600 pieces of abangan keramik in 'selendang mayang' style.

Pak Marwan also has many local buyer in northern beach of Central Java Province, such as from Semarang, or Blora. By having the own pick-up car, sometimes, Pak Marwan send ceramics, for example a table set with the ornament of a dragon or eagle, to other cities.

Income Source

Pak Marwan coordinize, control and get involved to the job. From the HBE, his son also can get income from the HBE, also the nephew, mas Mar works as decorator for the ceramics. Mas Mar is not only work for Pak Marwan, but also in other relative's HBE for example mbak Suratiyem, who live at the back of Pak Marwan's house.

The typology of HBE

The HBE is a complete one, it shaped the raw ceramic, firing it out, doing finishing and packing and market it through buyer.

The worker of the HBE

The shaper are from Brebes, in around 4 people works to make big ceramic, the decorator is the nephew, mas Mar, and the son works to do

finishing the ceramics. Pak Marwan sometimes involved in butn the ceramics our or to transport the ceramic.

The market of the HBE's product.

The market of Pak Marwan's HBE is local and national market, but also as a supplier for exported products. He has various buyers, but he is flexible. The availability if a new creation of design led him can adapt with the new market. Previously he relied on the exported market, eventhough not directly, but he can sell many ceramic the ' abangan' ceramic and the other HBE or industry will export it. However, now he can also sell to the local market, sell it in finishing ceramic by his own small truck.

The open oven is available, and looks that the oven is never stop working. As his order is many, but also her family, particularly his mother uses the oven as well in producing a cilinder table set.

The two different plots are used for the HBEs. As the 1 plots is purely used for HBE, particlualry for shaping and moulding the ceramic, dried and firing it the ceramic, the other plot is the house, for finishing and storage the finishing products. **The space used for HBE** in the house is around fifty percent for the economic activity and the rest for domestic activity. His house is in 2 storeys, and the terrace is used for finishing, and the rest for households.

The recontruction process is typical with others, emergency tents with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the help of government with 15 million rupiahs.

Pak Marwan starts to doing his HBEs from his parents, the same as his brothers and sisters, as they are in 7 daughter and sons, have ceramic HBEs. Although several of them does not have own HBEs ceramic, but they works as a worker for other enterprises. For example, Bu Marsinah and Bu Mar. Bu Marsinah has own ceramic HBE, and in the peak of her business several years ago, she can had many workers in around 4 people

from Brebes to shape gigantic ceramic raw ceramic. However, as the export ceramic decrease, her buyer never came and order her ceramic. Now, she makes 'bawangan' for the showroom near UPT or Kasongan main road, and she is helped by her older sister, bu Mar.

Assets

Human Capital Pak Marwan has a primary school level.

Social Capital, Pak Marwan has many family member who involved in his HBE as ceramic owner.

Physical capital in the dusun Kasongan area are in a high density area, so the road into the dusun is not wide. But, a car or truk can run through the way, but it is not in 2 ways, but only on eway, as it is around 3 metres width only.

Natural Capital is a raw material is abundance but, it is decrease

Financial Capital

The motive to maintain the HBE ad the strategy to maintain

The mechanism and support when restarted after earthquake

H. **Profile of the Pak Bumi**

Typology of HBE

Pak Bumi is busy entrepeneur. With help of his wife, Bu Murgiyanti, the production of their ceramic HBEs seems never stops. The type of HBE is complete, as all the activity are taken place in the HBE, exclude the raw material mixture, as Pak Bumi buy the prepared raw material. However, it the workshop at backyard, the product of the brother and parent also taken place on the same place. His oven also is used for his sister burn of some ceramic in different form of ceramic.

The relationship with other HBE

Pak Bumi's HBEs has many relations with other HBE, it seems from the business connection with the relatives and neighbours who contribute to the production process. Pak Bumi has a tall shape ceramic production, as ordered by for example Pak Timbul, so Pak Bumi also has own workers from Brebes. However, as his next house is his family who also produce ceramic, the space for domestic and ceramic is divided for the family, who produced different ceramic for different market.

One of the supplier for 'mentahan' ceramic is Bu Wahini, who the house has a border with Pak Bumi plot of land. As Pak Bumi has a big oven, the firing in different time in rota with his brother, sister and parent. But it seems that the production of ceramic process, from the moulding it, to fired and the transportation activity,always continues, and never stop.

Income Source

The Home based enterprises in Pak Bumi house is a totally contribute income for the family. Even the HBE's can give the opportunity to Pak Bumi's sons study to university level to get master level, while the second son still in undergradute level.

The typology of HBE

The HBE is a complete one, as the owner mould clay become raw ceramic through the workers, firing it out, doing finishing and transport it to the buyer. However, most of the product is in 'abangan' ceramic, but his HBE can do finishing when an order specify to only finishing ceramic product. He then will ask Pak Mujiono, the neighbour who can do finishing the ceramic.

The worker of the HBE

The workers of Pak Bumi is from the Brebes and Plered, West Java, a place which popular with the skilled person in shaping ceramic in tall shape model, up to 2 meters height. Some are local people, or from the neighbours. The 4 workers from Brebes, works in piece rate basis, the workers is paid based on the ceramic shaped on a certain period. So, as the many ceramic can be produced by a worker, more money will he can get. According to Bu Murgiyanti, wife of Pak Bumi, one of worker at least can have 50 thousands rupiahs per day. The most cost of production is for paying workers wages. Pak Bumi is also involved in the firing and coordination works, and his wife, bu Murgiyanti works as cashier and accepting the order.

The market of the HBE's product.

The market of the HBE's product is local product, and subcontract for Pak Timbul, who basically has international market.

The open oven is available, as stated before, the oven seems never stopped working, as the different users of his family need to regularly fired raw ceramic as well.

The space are used for the economic activity and domestic activity. The oven, the storage of wood for firing energy need a separate space. Beside the oven and storage, there is also the shaped and dried room, placed at the back of house which is shared with other relatives and parent who also produces different ceramic product in smaller ceramic products. On the terrace is used for finishing activity. The house is in the middle and has a border with relatives. **The space used for HBE** in the house is around thirty percent for the economic activity

The recontruction process is typical with others, emergency housing with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the help of government with 15 million rupiahs.

Pak Bumi starts to doing his HBEs since the start, as the parent also made ceramic in traditional products. However, as the copy mechanism works out, Pak Bumi also make a gigantic ceramic product, and became a regular supplier to Pak Timbul. According to Bu Murgiyanti, a contract describe and define the price of specific product, and since earthquake 2006, a new contract which increase the price is signed in 2011 contracts. As other supplier, a penalty mechanism apply when a supplier late in providing the 'abangan' ceramic as ordered.

Assets

Human Capital Pak and Bu Bumi has a SMA, or high school level.

Social Capital, he has a family and neighbour who support his business, and the relationship also basically in a business relation.

Physical capital has a burden as the location is in the 'kampong' Kasongan and high density, so the access of the main road to his house is in a relatively 'jalan sempit' only can be passed through a pick-up car in a one direction. However, it does not disturb the economic activity, as the van can be transport easily to the HBE, and also there is a garage of Pak Bumi for placing the pick-up car.

I. **Profile of the Pak Giyono, mbah Mitro, dan Bu Ijem**

Typology of HBE


Pak Giyono is son of mbah Mitro. His sister, Bu Ijem is also HBE's owner. Three of them share place to do their own business on the same plots, but in separate place. Pak Giyono occupied the front space, Bu Ijem do ceramic activities in the other side front space and Bu Mitro at the back of Pak Giyono ceramic enterprises. However, only Bu Mitro lives in the plots, as Pak Giyono and Bu Ijem has a domestic activity in other places. Pak Giyono lives with his wive and son, with their parent in law nearby the HBEs, when Bu Ijem live with her family at the back/near Pak Giyono's house.

Pak Giyono makes a tall shape ceramic, as well as 'bawangan' ceramic,


when bu Ijem also has a different ceramic in 'gentong' and 'kendhil' style. Bu Mitro makes traditional ceramic in 'keren' and 'anglo', traditional stove, when Pak Mitro make the animal shaped money box or animal figurine by his hands. All of them burn the ceramic on the same oven, in front of the HBEs. For the products, almost all are using raw materials, but only for traditional ceramics as Bu Ijem doing, she mix the clay by herself from paddy rice field mud, with adding some sands from the river nearby.

The relationship with other HBE

As stated before, the relationship amongs them are on the same family, so they are share the space, and use the same oven and storage. The relationship with other HBEs does not exist, as they already seems independence, and have own market in different buyer.

Income Source

The Home based enterprises in Pak Giyono, Bu Ijem and Pak Mitro is the main financial income for their family. Also, Pak Giyono has a skill to teach elementary school student to make ceramic. Regularly, he get the demand as a trainer or teacher, to play and make ceramic in his workshop. For him, all the job related to ceramic and he can do, he will do it.

Bu Ijem previously has a showroom nearby the Kasongan main road, as she has been evicted and did no longer has showroom nearby the main road.

The typology of HBE

The HBE of Pak Mitro is a complete one, preparing the raw material by mixing the mud with sands, shaped the raw ceramic, firing it out, doing finishing and market it through buyer, go with his bicycles to city or traditional markets. According Pak Mitro, when he was young, he can sell his ceramics hundreds kilometers from his house such as to Semarang or Purworejo by train. But, as he is getting older, he transport his products in the nearer places.

For Bu Ijem and Pak Giyono, their HBE provides 'abangan' ceramic, however, for pak Giyono, he can make a finishing one, depend on the order. Sometimes, he can sell the ceramics for exported one, shared with other supplier, for example in one container can be filled with craft-

stones, and other handycrafts. So Pak Giyono need to fill one fourth or one third of a container. However, it is not regular activities, depend on the order coming .

The worker of the HBE

The shaper are from Brebes, to make tall shaped ceramic, with 2 workers for Pak Giyono, and 1 for Bu Ijem. However, Bu Partinah, local people also a worker of bu Ijem, has a role to shape the raw ceramic in Bu Ijem's HBE. The husband of Bu Ijem is also make the decoration or carve the ceramics, but also sometimes he is working for other HBE as ordered by other neighbour HBEs. For bu Mitro, no other workers in their HBE. They do all by themselves, but for firing, they are helped by Pak Giyono, their son.

The market of the HBE's product.

The market of Pak Mitro's HBE is local and traditional market. For Pak Giyono the market is lokal and national, but also exported market. Bu Ijem has many order from Jakarta's buyer, so basically local or domestic or national market for 'abangan' or un-finishing ceramic.

The open oven is available, is used for the family

The main plots are used for the HBEs of Pak Mitro, and also his son Pak Giyono and daughter Bu Ijem, and around 25 percent are for house of Pak Mitro and also the mother of Pak Mitro, at the backyard, a goat barn is available. The plot is used for HBE,particularly for shaped the ceramic, dried and firing the ceramic, and storage and showroom for the 'abangan' and also several finishing products. **The space used for HBE** in the house is around 75 percent for the economic activity for three HBEs and the rest for domestic activity for only 1 family.

The recontruction process is typical with others, emergency housing with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the help of government with 15 million rupiahs.

Pak Giyono starts to doing his HBEs from his parents, even his Father in law also the othe prominent HBE ceramic, who can export: Pak Buang.

activity, and the damage is major, as she get maximum grant for housing rehabilitation.



Assets

Human Capital Pak Giyono has a SMA or high school level., however, Pak and Bu Mitro are illiterate

Social Capital, Pak Giyono has a self confidence, critical person, but also kind, as he always accept student to learn in his HBE as he said that he already got studied and knew how a acceptance of a interview is

important in getting data. Pak Mitro and Bu Mitro also accept with open handed when I asked to see how their work.

Physical capital the access to the HBEs is very good, as the road in front is wide and asphalted. Trucks or container can be parking in the front of the HBE.

(However, at the second fieldwork in 2013, Pak Mitro has passed away even last two years, just a few months after the first fieldwork in 2011).

J. Profile of the Pak Subur

Typology of HBE

Pak Subur is a father of 2 daughters, one of the daughter has married and move to follow the husband to other island, Sumatra, a palm farm owner. The other daughter is a university student.

Pak Subur previously worked as a manager in SGM, a milk powder factory in Yogyakarta. Before that, he worked at Sugarcane Factory, Madukismo in Yogyakarta too, and also study at Civil Engineering, but he cannot finished it. As he moved to the SGM factory, then he studied a different field in economics, finally he can get a degree from the field, particularly management background.

Pak Subur started to have an own enterprises in chicken farm, and have a peak success, who have thousands chicken at that time. But, as the competitors rose, he start to do his ceramic enterprise. The internet is www.suburceramic.com

The Subur ceramic has a peak success in 1990s and earlier 2000s. His products is gigantic model with washed technique, like a mexican style(Timboel, 2010). As Pak Subur as the first person in Kasongan who has a telephone access by buying several telephone, and he can have access on fax, it makes the export was easier at 1980s era. At that time he succeed, as Pak Subur was able to export many ceramics, at x container each month.

Nowadays, Subur Ceramic is still struggling with the economic crisis, as most of his market which is in international market are collapse, he find difficulty to sell the product. The competitors also now mushroming.

Sometimes a buyer cancel the purchase, for example, a demand to France, has been struck, even the ceramic and packing is prepared to be transported. Some packs of ceramic has been neglected on the packing areas.

Subur Ceramic one of several HBE which can produce from the start to the end. Subur ceramic preapre the clay with a certain formulae, shape it, burn it out, finishing it, and finally contact with the buyer to be exported.

The place of HBE is distributed in many areas. The showroom and office are in front of the house, which is located in Kasongan Main Road, which the other place are for mix the raw materials, the other building are for mass production in dusun Gedongan, to shape, burn it out, finishing and packing. One other place in Maya ceramic, the name of the second daugther, is for stuffing the container. Another building is not used anymore, as it previously was the place for production, but then it has been not occupied, as the worries of the owner of the copy of the design to the other HBEs. The worriness and the protect of the design can be reflected from the noticeboard not to take picturefor the visitor, both in gallery and workshop. However, for academic reason, the owner did not mind at all and give permission for the researcher to take picture as it is not for business interest. From this side, the competition's feel is so strong.

The relationship with other HBE

The HBE is very independent, as it has no link with other HBEs excludes the buyer or exporter. To provide clay, the HBE has rent a certain plot of land to use the clay to provide the raw materials, the reason is quality, Pak Subur can control the quality since the starts. As the HBE is relatively big since years ago, and seems as the leader of the HBEs in Kasongan areas, the HBE is one of the prominence HBE in Kasongan. Also, Subur keramik also sometimes organizes the container sending to Australia or other countries with other HBE for example with Pak Sarjiman.

Income Source

The Home based enterprises in Pak Subur house is a totally in contribute income for the family, eventhough he is also got another income from pension of his employer in SGM, milk factory. However, he also has some plot of palm oil plantation farm in Sumatera island, nearby his daughter house. This happen, as his son in law always help him get a palm oil plantation farm, when anyone are willing to sell the plantation farm. Pak Subur has to financed his second daughter to finished the university education.

The typology of HBE

The HBE is a complete one, as the owner prepare the mixture of clay, has shaped the raw ceramic, burnt it out, doing finishing and packing and market it through buyer. As Pak Subur said, his business is product

oriented, not market oriented. He illustrates that a producer like PT Unilever, is a market oriented, as the enterprises market all the item of shampoo, toothpaste, soaps, etc to be consumed, but actually the producer are not the PT Unilever, but the other enterprises. However, the Subur Ceramic is product oriented, as the HBE produce the ceramic, and the seller through buyer. In doing so, when I asked about is any exhibition and promotion overseas to promote his products? Pak Subur said it is not domain for his enterprises, he will be a competitor for his marketer, who become a member of the exhibition or promotion event.

The worker of the HBE

The worker number has been decreased. Nowadays, the model has been in wash and silver or gold finishing. Other buyer buy Gigantic Budha patung, which is not fully in ceramic form, but cement as it is stronger. It can be viewd as innovation to produce a quality product.

The market of the HBE's product.

The market of the HBE's product is international market, as the website is also in English in www.suburkeramik.com. However, Pak Subur also mentioned the reduced the production capacity, different with the several years ago condition.

The 2 open oven is available, one is bigger rather the other one. The routine uses nowadays is the smaller one.

The five different plots are used for the HBEs. As the 4 plots is purely used for HBE, the house is also as the gallery and office. **The space used for HBE** in the house is around thirty percent for the economic activity particularly the gallery, and the rest for domestic activity, as the house is in 2 storeys, and the terrace is used for gallery, and the rest for households

The recontruction process is typical with others, emergency housing with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the help of government with 15 million rupiahs.

Pak Subur starts to doing his HBEs since the start and no one in the areas has telephone or fax access. He is on of the pioneer of HBE in Kasongan area who can export and got support from UPT (Ceramic Service Unit of Deparment of Trade and Industry)

Assets

Human Capital pak subur has a university level. He is well educated and has a quality management view as experienced as a manager in SGM, milk powder factory in Yogyakarta.

Social Capital, Pak Subur also has a role to establish Koperasi Usaha Bersama (KUB) covers 2 RT in RT 3 and 4 dusun Kajen, (Rp 500 rb become Rp 600 rb for a year, 20 % per year), with the capital Rp 25 million at the first from the grant, and now provide the micro credit for

household in those RT. As the informal leader for the surrounding area, Pak Subur try to organized a Cooperative.

Physical capital in the area of Pak Subur is very good and accessible, as the container are able to reach the stuffing point, usually nearby Maya Ceramic, a wardobe/gudang part of Subur Ceramic.

Natural Capital is a raw material is abundance but, it is decrease as Pak Subur said that, previously he rent a plot of land nearby, but now he has to move to other land.

K. **Profile of the Pak Ribut and his daughter and son in law :mbak Nur/mas Ijo**

Typology of HBE

Mas Ijo is son in law of Pak Mitro. His HBE is now increase, as after earthquake he makes a good showroom in the Kasongan main road, with the name 'Ribut Ceramic', Mas Ijo is finishing ceramic with sands, and has a good selling points, as regular buyer order him to send finishing 'bawangan' or semi gigantic ceramic in 60,80, and 100 centimeters to Kalimantan.

Pak Ribut makes another ceramic products in a big kuali or pan, for aluminium melting purposes. He already has a regular buyer, so every time he finished the kuali, the kuali will be bought, as kuali is only once can be used for aluminium melting, and need a new one.

The relationship with other HBE Mas Ijo's ceramic HBE is relatively depend on the provider of 'abangan' ceramics, due to he focuss on finishing ceramic. Pak Ribut makes all the process by himself with the help of his wife in shaping the kuali, but for burnt the kuali, he do it with the help of his wive. **Income Source** The Home based enterprises in Pak Ribut and mas Ijo is the only and main contributor for their family.

The typology of HBE The HBE of Pak Ribut is a complete one, preparing the raw material by mixing the mud with sands, shaped the raw ceramic,

burnt it out, and the product will be take by the buyer. The buyer was a regular buyer, who buy since 1980s.

The worker of the HBE Mas Ijo have 6 people works in his HBE, all the family member, included his wive. His brother and nephew help him to finishing, the other sister has to keep the showroom. Pak Ribut and Bu Ribut make by theirselves for the 'kuali' without any workers.

The market of the HBE's product. The market of Pak Ribut HBE is local and traditional market. For Mas Nur the market is lokal, but also it has been exported to Malaysia by truck. So, it has marketed internationally. **The oven** is not available, Pak Ribut burnt the ceramic out in open air, without any kiln or oven. **On the one plots** are used for the HBEs. for Pak Ribut at the back and his son Pak Nur and his brother. The terrace is using for showroom, and pak Ribut and Pak Nur has workshop at the back. In the middle is using for domestic activities for 2 families: Pak Nur and his brother. Pak Ribut's house at different building, in a nonpermanent building. The burnt process are place on the backyard. **The space used for HBE** in the house is around 50 percent for the economic activity for two HBEs and the rest for domestic activity for 3 families.

The recontruction process is typical with others, emergency housing with other families, temporary housing in triplex and asbestos roof, and finally the permanent housing rehabilitation with the help of government with 15 million rupiahs, and this is mainly for the showroom development. **Pak Ribut and Pak Nur starts** to doing his HBEs from his parents.

Assets

Human Capital Mas Ijo has a SMP or junior high school level., however, Pak and Bu Ribut are illiterate. **Physical capital** the access of the HBE is excellent, as the main Kasongan main road is wide and asphalted and in front of their house. Trucks or container can be parking in the front of the HBE. Usually tourist come to their showroom, as the access is easy and the showroom is interesting. **Natural Capital** is a raw material is abundance but, it is decrease

Appendix E

Sample of Transcript of Interview
12 July 2011
with Suparmi(in Javanese)

Q : Pas gempa rumiyin pripun bu?

A : Niki bangunan baru, rodo bakoh

Pas riyin sing pawon nggih atape ambruk

Q : Njenengan sedherekke mbak suratiyem?

Nek sing pesen mboke mbak Ratiyem, kulo nggih nggawekke, ….daleme lor warung, sing mundur

Ovene ting mriko, dipendhet(mentahan)…sakesuk 3..enjang semah ngembangi, sakderenge angkut-angkut..nek angsal 1 nopo 2..satekane

Lare-lare pun gedhe-gedhe..sekolah kabeh, sing setunggal pun kuliah semester 6 teng STIE, sandhing Mandala Krida, dede Giwangan..Sing no 2 niki klebonan SMA

Q : Suk ngewangi ndamel keramik mboten?

A : Mboten, do angel le ajar paling.

Q : Jaman riyin ndamel ngaten, ajar dhewe?

A : Dirasa-rasakke, dingen-ngen dhewe, wangun nopo mboten…naming 50 ewu, telas seminggu….mangkeh..ndak atos..saking polosan terus dibesen dibalutke..

Q : Njenengan nyetor pinten?

A : Mboten mesthi, kadang 2, nek ngriko mboten..yo mengko ana liyane sing mendhet

….

Nek kene ki suami istri ki kerjo bareng..mboten kok suami kerjo keras, sing wedhok ora..wiwit alit wis iso, simbokke riyin kundhi,sing riyin teksih pot, anglo..

Ben minggu dipendhet, nek pun dados, pun atos…ngembangi langkung seminggu…wonten 10 nggih dipendhet..bar gempa do mboten dingo..do mboten damel waune ting mriko….dibongkar trus fdigawe kandang sapi

Q : Lho nggaduhke nopo bu?

A : Mboten, gadhahane piyambak

Q : Lha sing madoske suket sinten?

A : Nggih bapake piyambak. Nek kerjo setunggal dinten nggih ngarit, nek sakdinten nggih tumbas

Q : Kudu ngopeni je

A : Nggih nggo celengan, nggo celengan, nggo sekolah

Q : Nek dirasakke sederenge kalih sakbibare gempa?

A : Sami mawon. Guci..nopo le pesen..meja ya..guci iya (60 paling)…

Tergantung le nyuwun empuk nopo atos, mangke diempukke disiram toya..

Q : Nuwun sewu, bibar gempa trus mundhut lempung ngge ngundhi malih ngagem

tabungan nopo ngampil

A : Ngedol (mobil) carry, yo ra dinggo, sing ra penting, rego mudhun anjlog. Nggo dandan omah, nggo mangan..Lha wektu semono rung entuk bantuan, lha terus ndandani omah piyambak..lha mboten kecatet entuk bantuan (pas awale)..dereng kulo dandani, dadine kulo dol riyin Carry-ne

Q : Lha angsal 4 juta niki?

A : Lha niku le entuk rak suwe banget, dadine kulo teteki riyin, entuk ganti 4 juta. Tuku Carry 31.5 juta didol 22 juta

Q : Pun dinggo pinten tahun?

A : Ngge tombok riyin nggih sapine niko, terus diulur-ulur sapriki nggih tesih. Syukur-syukur ben isih terus ..nggo celengan…

Q : Pun nambah bu sapine?

A : Sampun, riyin sampun

Q : Pun balik modhal?

A : Kari bathine

Q : Bener tho berarti sapine?

A : Lha nggih

Nek tabungan, dijupuki terus ..entek..nek sapi, dadi sapi wae

Malah bener, sapi saiki yo larang banget

Riyin satunggal bar 8 juta..diulur-ulur ping bolak-balik adil..le mundhut bar gempa, trus payu wae carry-ne

Nek mriki niki, pasar sapine nek Paing

Q : Malah lancar rejenikine..iso nggo kuliah barang

A : Nggih…lha riyin sing gedhe niko taksih SMA trus sing cilik isih SMP. 5 tahunan pun wonten, 2006 Mei. Akhir Desember celengke sapi

Q : Nggih leres tho bu

A : Lha pripun, bar gempa do mboten wani teng njero, mung do teng njobo..perlu nggo ndadani omah

Nek mriki teksih ngadeg omahe..ambruk total 2..bangunan ning mboten ngge wesi/rangka. RT 3 keno dietung sing ambruk, mung bengkah..

Tukang Brebes sami mawon, sak omah 3-4..pas pesenan kathah nggih kathah dilorot 2-1..pesenan mboten wonten nggih dilorot borongan..Minggu ngoten nggih, kadang prei kadang setengah dinten. Nek minggu kerjo hawane kesel…

Q : Nek lare-lare boten nderek damel nggih bu

A : Dereng do gelem..paling sakmenten niki, kinten-kinten sepalih trus sanjang wis keju…yo wis seren, kulo ngotenke